



# XINYI ENERGY HOLDINGS LIMITED 信義能源控股有限公司

(Incorporated in the British Virgin Islands with limited liability) Stock Code: 03868



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## **ABOUT THIS REPORT**

### **Reporting Content**

This report is an Environmental, Social and Governance Report (the "Report" or the "ESG Report") prepared by Xinyi Energy Holdings Limited ("Xinyi Energy" or the "Company") and its subsidiaries (the "Group") in accordance with the Environmental, Social and Governance Reporting Guide (the "ESG Reporting Guide") set out in Appendix 27 to the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited ("Hong Kong Stock Exchange" or "HKEx"). The Report has also made reference to the following environmental, social and governance ("ESG") standards and frameworks:

- GRI Universal Standards 2021 of Global Reporting Initiative ("GRI")
- Task Force on Climate-related Finance Disclosures ("TCFD")
- Sustainability Accounting Standards for the Solar Technology & Project Developers Industry of Sustainability Accounting Standards Board ("SASB")

Please see the appendix of the Report for the content index of the Hong Kong Stock Exchange and the GRI's ESG Reporting Guide. The Report has complied with all mandatory disclosure regulations and the disclosure reguirements of the "Comply or Explain" provisions contained in the Hong Kong Stock Exchange's ESG Reporting Guide.

### **Reporting Period**

The Report is the fifth ESG Report of Xinyi Energy, presenting the Group's sustainability performance during the period from 1 January to 31 December 2023 (the "Reporting Period" or the "Year"), which is the same as the reporting period of the Group's annual report. Part of the content may trace back to previous years or extend to 2024. The Report is an annual report published at the same time as Xinyi Energy's 2023 Annual Report. It is recommended to read the Report together with the Group's annual report and the "Corporate Governance Report" contained therein. The Report is published bilingually. If there is any discrepancy between the two versions, the Chinese version shall prevail.

### **Reporting Scope**

The Report covers all the entities set out in the Company's financial statements, including all the subsidiaries. Unless otherwise stated, the performance statistics of the Company mentioned are reported on a 100% basis, without adjustment based on the equity interest owned by Xinyi Energy. The Group reviews the reporting scope on a regular basis to ensure all the scopes having material impact on the Group's overall portfolio are covered. The reporting scope of the Group's ESG indicators had no material change in 2023, and the Report has not been restated.

### **Reporting Principles**

The Report has made reference to the reporting principles of the GRI Universal Standards 2021 and followed the reporting principles of the Hong Kong Stock Exchange's ESG Reporting Guide:

- Materiality: Making reference to the materiality assessment involving both internal and external stakeholders, such as investors and employees, and reporting on material issues
- Quantitative: Disclosing the standards and the sources of conversion factors used for reporting emissions/energy consumption, and updating sustainable development goals and key performance indicators "KPIs"

- Balance: Reporting the Company's performance in an unbiased manner •
- Consistency: Using consistent disclosure and statistical methods to provide meaningful comparisons of trends

In the Report, unless otherwise specified, all monetary amounts are presented in Hong Kong dollars. KPIs used for comparison are calculated with the same method. Explanation will be made if there are any changes.

### Forward-looking Statements

The Report contains forward-looking statements, which are forecasts and assumptions made based on the current state of the Group's business and the industry and market in which the Group operates, and cannot be treated as guarantee of future performance. The Group's performance might be affected by market risks and uncertainties. Hence, the actual result might differ from the assumptions and related statements made in the Report.

### **Review and Approval**

The Report has been reviewed by the Sustainable Development Management Committee (the "SDM Committee") of the Group and was published on 30 April 2024 after the approval by the board of directors (the "Board") of the Company. The Report is available for download on the website of the Hong Kong Stock Exchange (www.hkexnews.hk) and under the Investor Relations tab of the website of the Company (www.xinyienergy.com).

### Contact and Inquiry

The Group is committed to enriching ESG disclosures by drawing on local and international best practices. To continuously improve the level of ESG practice and disclosure, the Group welcomes and encourages all stakeholders to provide opinions and suggestions regarding the Group's ESG practice or the content of the Report. Our contact information is as follows:

### Xinyi Energy Holdings Limited Investor Relations Department

Address: 21/F, Rykadan Capital Tower, No. 135 Hoi Bun Road, Kwun Tong, Kowloon, Hong Kong Telephone: +852 3919 2888 Fax: +852 3919 2890 E-mail: ir@xinyienergy.com.hk Website: www.xinyienergy.com



# **BOARD STATEMENT ON SUSTAINABILITY MANAGEMENT**

### Dear stakeholders,

Since its establishment, Xinyi Energy has adhered to the core values of "Trust, integrity, passion and people". While striving for excellence in business performance, Xinyi Energy has actively fulfilled its commitment to sustainable development. The Group's sustainability governance adopts a top-down strategic approach. The Board is fully responsible for supervising the Group's sustainability issues, assessing and managing material environmental and social risks, and incorporating them into the Group's strategic considerations. With effective decision-making guidelines and extensive support from internal and external stakeholders, the Group has continued to move forward and made positive progress on the road to sustainable development.

During the Reporting Period, we actively fulfilled the responsibilities and obligations of the enterprise to promote the sustainability of environment, society and economy. We took on the important task of promoting carbon reduction in the whole society through the supply of green power, and actively seized the opportunities to achieve the expansion of business scale. At the same time, we demonstrated corporate responsibility in community building and talent management. Xinyi Energy's ESG efforts have been recognised across the community. It received the Green Finance Pre-Issuance Stage Certificate under the "Green and Sustainable Finance Certification Scheme" of the Hong Kong Quality Assurance Agency in 2021, and was awarded the "Best in ESG Awards-Middle Market Capitalisation" by BDO Limited for two consecutive years. During the Reporting Period, the Group was honoured with the "Outstanding Listed Company Award 2023" by renowned media and financial sectors in Mainland China and Hong Kong, which demonstrated that the Group's performance in the areas of corporate governance and environmental, social and governance ("**ESG**") has been highly recognised by the capital market and various sectors of the community.

China is the world's largest energy consumption and carbon emission country, and its CO<sub>2</sub> emissions account for approximately one-third of the world's total. In September 2020, China's President Xi Jinping announced China's "carbon peak" and "carbon neutrality" goals ("**Dual Carbon Goals**") - "China will strive to reach peak in respect of CO<sub>2</sub> emissions by 2030, and strive to achieve carbon neutrality by 2060". As a renewable energy power plant operator, the Group enjoys huge opportunities for the long-term development of its core business due to the global energy transition trend and the establishment of China's Dual Carbon Goals. By expanding and strengthening our core business, we continue to increase the total installed capacity of solar farms. We also increase power generation through efficient O&M to supply more green power to society, making positive contributions to global climate change mitigation while achieving corporate income growth. During the Year, the Group took the initiative to participate in green power trading in Anhui, Guangdong, Shaanxi and other areas, making us an important partner for more electricity-consuming enterprises to achieve their commitment to sustainable development. In addition, the Group actively responded to the concept of sustainable finance and signed the first sustainability-linked loan of HK\$800 million with DBS Bank. This aims to increase the scale of the Group's renewable energy power plants through green and sustainable financing channels, so as to fully support the realisation of China's Dual Carbon Goals, and benefit the stakeholders.

We have always taken the demands of different stakeholders into consideration. After identifying and prioritising the material issues based on their importance, we adopt a dual verification process. The chief executive officer ("**CEO**") and the senior management conduct the first round of review and make reasonable adjustments as needed. The Board reviews the results of the first round of review and confirms the material issues disclosed in the Report, and incorporates them into the Group's sustainability strategies and plans. The Board leads the Group to formulate sustainability strategies, and actively monitors and follows up on its sustainability performance through the report of the SDM Committee, evaluating, managing and closely capturing the ESG risks and opportunities brought by the identified material issues to our business.

Based on the six corporate sustainable development goals (XYE Sustainable Goals, "**XYE SG**") proposed by the Group based on the United Nations Sustainable Development Goals ("**SDGs**"), the Board reviews the performance and progress of ESGrelated goals on an annual basis, and evaluates and considers relevant goals in a timely manner according to the Company's development situation, responding with practical actions to the call of the United Nations for global companies to achieve sustainability together.

To cope with the evolving ESG risks and opportunities, we strive to integrate ESG principles into the Group's operations and development while continuously updating its risk management framework for enhancing resilience. We also actively consider ESG-related issues in future business layout and investment decisions to drive business development with corporate ESG. In the future, we will work hand in hand with all stakeholders, continue to practise Xinyi Energy's core values, persist in fulfilling corporate environmental and social responsibilities, and unswervingly create long-term sustainable value for stakeholders.

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The Board 30 April 2024

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# **ABOUT XINYI ENERGY**

Xinyi Energy was listed on the Main Board of the Hong Kong Stock Exchange on 28 May 2019 (Stock Code: 03868.HK). The Group is headquartered in Wuhu City, Anhui Province, and is principally engaged in the sale of electricity from its solar farms to state-owned grid enterprises and the provision of services in the operation, maintenance and management of its solar farms, making it a leading pure solar farms owner and operator based in the PRC.

As a pure operator of solar farms, Xinyi Energy is not involved in the development and construction of solar farm projects and mainly acquires high quality renewable energy solar farms projects from Xinyi Solar Holdings Limited ("Xinyi Solar", Stock Code: 00968.HK) and independent third parties. In particular, the Group holds subscription options and pre-emptive rights over the solar farms owned by its controlling shareholder, Xinyi Solar, which has a reserve of solar farm projects with a total approved capacity of more than 1.9 gigawatts ("GW") in its possession, under construction and pending construction during the year, which are available for the Group plans to acquire 700 to 1,000 MW of utility-scale grid parity projects and actively increase the scale of solar farms to provide more clean energy, and expects that the total approved capacity of the Group's farms will reach 4.4 to 4.7 GW.





power generation



# SUSTAINABILITY GOALS

In line with our business philosophy of "With Green & Eco-friendly to Sustainability", the Group is committed to improving its operations and implementing effective programmes to strengthen corporate governance, as well as actively engaging and participating in environmental and community development to achieve sustainable impact. We have therefore continued the Group's six sustainable development goals ("XYE SG") set up in 2019 and aligned them with the United Nations Sustainable Development Goals ("SDGs") to provide greater clarity and relevance to the Group's strategy and business priorities. The Group is assessed annually against the XYE SG and regularly reports and reviews key performance in order to create value for all stakeholders. During the Reporting Period, the Group made positive progress on various corporate sustainable development goals, including:





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During the Reporting Period, the Group did not have any safety incidents that harmed the surrounding communities, nor any work-related accident was occurred. One case of work-related injury in 2022 was rehabilitated and returned to work. The Group maintained zero incidence of occupational diseases



The Group strictly followed the principles of the United Nations Global Compact in relation to labour standards, and did not have any confirmed violations of anti-discrimination, human rights protection principles and labour laws/regulations. The internal promotion rate for middle management was



The Group actively promotes the understanding of photovoltaic power generation in the community. Through the PV education bases and the operation of "fishery-PV complementary" and "agricultural-PV complementary" solar farms, the Group shared information on the principles of PV power generation, the application under different scenarios, and the environmental and economic benefits generated by combining different fields with different social groups. This aimed to enhance social awareness of PV power generation, encouraging people to accept and proactively promote the application of PV power generation. During the year, the "agricultural-PV complementary" projects and "fishery-PV complementary" projects accounted for 70.7% and 29.3% of the newly acquired solar farms

# **MATERIAL ISSUES**

### **Communication with Stakeholders**

The Group fully understands that the feedback of different stakeholders is key to the formulation of ESG strategies and the promotion of ESG development, and it helps the Group to identify the actual and potential impact of its business. Therefore, the Group attaches great importance to establishing and maintaining good communication with stakeholders. Based on the four factors of relevance, impact, reliance and proximity, the Group has identified employees, shareholders and potential investors, customers and partners, governments and regulators, and communities as the five key stakeholder groups after prudent consideration of the degree of reliance or influence of different stakeholders on the Group's business and longterm development. During the Reporting Period, the Group still used the same channels as in 2022 to maintain effective communication with different groups of stakeholders, and made good use of video/conference calls and instant messaging software to enhance communication with employees, shareholders and potential investors. The Group responded to the feedback of stakeholders and incorporated it into the decision-making process.

Stakeholders of different groups have expressed their continuous concerns over ESG scopes such as environmental benefits, social responsibility and corporate governance. They are also increasingly concerned about how Xinyi Energy will play a more important role in energy transition as a green power supplier, making more contributions to the realisation of the Dual Carbon Goals while expanding its own business scale.

Key stakeholders	Issues of concern	Main channels of communication
Employees	<ul> <li>Occupational health and work safety</li> <li>Employment compliance</li> <li>Remuneration and benefits</li> <li>Staff training and development mechanism</li> <li>Corporate governance and business ethics</li> <li>Business development and economic benefits</li> </ul>	Trade union (WeChat group)/staff representatives Performance appraisal Department/Group's meetings Training and staff activities Interviews/employee opinion boxes/ employee satisfaction surveys
Shareholders and potential investors	<ul> <li>Corporate sustainable development actions</li> <li>Value sharing and return for shareholders</li> <li>Corporate governance and business ethics</li> <li>Business development and economic benefits</li> <li>Talent team building and talent retention</li> <li>Acquisition scale and development plan</li> </ul>	Annual general meeting/extraordinary general meetings Announcements/circulars Financial reports/ESG reports Investor meetings/results roadshows/ site visits to solar farms Press releases/briefing materials Phone calls/emails/instant messaging software/Company's website









	Main channels of communication
t iness ethics ment actions ions	Contracts/agreements Phone calls/emails/meetings Site visits/customer visits
t iness ethics nomic ocial benefits	Laws and regulations Information reporting Site visits Phone calls/meetings
ocial benefits t nd	Public welfare activities PV greenhouse science education bases Coordination meetings Phone calls/visits/Company's website

### MATERIAL ISSUES

### Materiality Assessment

Materiality assessment allows us to identify economic, environmental and social issues that have a significant impact on our operations or stakeholders' decisions, which in turn ensures that in terms of ESG governance, the Board and the SDM Committee will pay high attention to corresponding material ESG issues and allocate sufficient resources. Material ESG risks related to the Group's business will also be assessed, managed, and incorporated into the Group's strategic consideration. Meanwhile, in terms of ESG disclosure, more emphasis is placed on the disclosure of information and core data on relevant issues. Corresponding plans are made to respond to the expectations and demands of stakeholders.

With reference to the recommendations of local and international best practices, the Group reviews and optimises the materiality assessment process every year to ensure that the materiality assessment results can more objectively and comprehensively reflect the ESG scopes and issues which are concerned by internal and external stakeholders.





Second step: Rank in Order of Importance

During the Reporting Period, the Group continued to develop the power generation business of solar farms, and its power generation reached a new high. The Group supplied green power mainly by sales of electricity to grid enterprises and actively participating in green power trading in Anhui, Guangdong and Shaanxi during the year to promote energy transition and Dual Carbon Goals. In the future, the Group will seize opportunities in the process of energy transition, and shoulder the responsibility for helping electricity-consuming enterprises to reduce carbon emissions. Therefore, "Supply of green power to promote energy transition" has been added as the most material issue. As the Group mainly supplies green power through the solar farm assets it holds, "Asset protection" has been added as a material issue.

While expanding its business scale, the Group attaches high importance to the business philosophy of creating positive benefits for the environment. In 2022, it signed the first sustainability-linked loan of HK\$800 million with DBS Bank, so "Sustainable finance" has also been added as a material issue. In addition, since the Group persists in fulfilling corporate social responsibilities and creating more local employment opportunities, "Community investment and public welfare" and "Promoting economic development for communities" have been identified as materials issues.



• Rank the importance of relevant issues to the Group's business operation and development based on communication with internal stakeholders

• Rank the importance of relevant issues to stakeholders and the Group's sustainable development goals based on communication with external stakeholders

• Map a new matrix for the Group's material issues, covering the priority issues regarded by internal and external stakeholders as the necessary considerations for the Group to achieve sustainable development, and show their materiality to stakeholders (Y-axis) and

Most important issues: Issues that have a material impact on both stakeholders and the business operation and sustainable development of the Group

- Important issues: Issues that have a material impact on stakeholders or the business

• The CEO and senior management review the assessment results in the second step, make reasonable adjustments (if necessary) and submit them to the Board for review

• The Board reviews the materiality assessment results and confirms the material issues

### **MATERIAL ISSUES**

According to the materiality assessment, the Group has finally identified 19 issues as material issues. The impact areas of relevant issues and the analysis of materiality are stated as below. For all identified material issues, the Group has provided further information in the following individual sections in the Report, and disclosed the performance of the KPIs of relevant issues during the Year in the chapter "2023 SUSTAINABILITY DATA SUMMARY" and provided 2022 data for comparison. In terms of other relevant issues that are not identified as material issues, such as those involving the GRI index or the KPIs which are required by the Reporting Guidance on Environmental KPIs and Reporting Guidance on Social KPIs of the Hong Kong Stock Exchange, the relevant data or explanation are provided in the section headed "APPENDIX: REPORTING GUIDE CONTENT INDEX" from pages 106 to 111.



	Material Issues	Employees	Governments and regulators	Communities	Shareholders and potential investors	Customers and partners
	Promoting green development					
1.	Supply of green power to promote energy transition	~	~	~	~	~
2.	Climate change and resilience	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
3.	Energy saving and emission reduction	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
4.	Ecological environment and biodiversity		✓	✓	~	
5.	Sustainable finance		✓		$\checkmark$	$\checkmark$
	Enhancing corporate governance					
6.	Sustainability governance	√	√	√	~	√
7.	Business ethics	✓	✓	✓	✓	~
8.	Compliance with laws and regulations	√	√	$\checkmark$	~	~
9.	Anti-corruption and integrity management	~	$\checkmark$		~	~
	Ensuring operational safety					
10.	Safety production and risk management	~	~	~	$\checkmark$	$\checkmark$
11.	Intelligent 0&M	✓	√		$\checkmark$	√
12.	Asset protection	✓	✓		$\checkmark$	√
	Safeguarding employee well-being					
13.	Employment compliance and human rights	$\checkmark$	$\checkmark$		$\checkmark$	~
14.	Diversity, inclusiveness and equal opportunities	$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$
15.	Talent acquisition and retention	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
16.	Occupational health and safety	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
17.	Staff training and development	$\checkmark$				
	Building a caring community					
18.	Community investment and public welfare	$\checkmark$	$\checkmark$	~	~	~
19.	Promoting economic development for	~	$\checkmark$	~		$\checkmark$



The World Meteorological Organisation (**WMO**) stated that 2023 was the hottest year on record in human history, with multiple climate records (greenhouse gases, global temperature, sea surface temperature, ocean heat content, sea level rise, cryosphere) being broken, the world was warming at an unprecedented rate. The 2015 Paris Agreement's target of keeping the global average temperature increase within 1.5 degrees Celsius ("°C") is believed to be difficult to achieve. As a pure operator of solar farms, we will fully grasp the development opportunities brought about by the global energy transition and help achieve the Dual Carbon Goals through green power supply, while enhancing biodiversity protection through power plants that have a positive impact on the ecological environment, such as "agricultural-PV complementary" and "fishery-PV complementary" solar farms, so as to contribute to the ecological environment and human welfare in the process of energy transition.

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### Supply Green Energy to Promote Energy Transition

According to the "2023 Carbon Dioxide Emissions" analysis report released by the International Energy Agency ("IEA"), carbon dioxide emissions related to energy increased by 1% in 2023, but the IEA forecasts a decline of more than 2% in 2024, with slightly decrease in the next two years. The structural decline in emissions from the power sector will be fuelled by an increase in renewable and nuclear power generation. The IEA said the coal-fired generation was expected to fall by an average of 1.7 per cent a year from now until 2026. This may create silver lining to the circumstances that made the lower target of 1.5°C among "keeping the global average temperature increase within 2°C from the pre-industrial levels", and striving to control the increase within 1.5°C under the Paris Agreement "almost unattainable.

The WMO reported that the global average temperature in 2023 was about 1.45°C higher than the pre-industrial average in 1850-1900, and that 2023 was the hottest year on record in human history, with multiple climate records (greenhouse gases, global temperature, sea surface temperature, ocean heat content, sea level rise, cryosphere) being broken, and the world was warming at an unprecedented rate. In 2023, extreme heat affected health and fuelled devastating wildfires. Heavy rainfall, flooding, and rapidly intensifying tropical cyclones brought a range of destruction, death, and huge economic losses. It is clear that the current energy structure is flawed and global energy transition is imperative. Governments urgently need to eliminate the use of coal and oil, and vigorously develop renewable energy sources such as solar and wind.

The report published by IEA showed that renewable energy will cover nearly all of the growth in global electricity demand by 2025 and will account for more than one-third of total electricity generation, surpassing coal to become the world's largest source of electricity. China is currently the world's largest consumer of electricity, accounting for 31% of global demand in 2022. Its share of global electricity consumption is expected to rise to one-third by 2025. In order to achieve the Dual Carbon Goals, renewable energy such as photovoltaics sees growing demand and will become a major part of future electricity supply. As a pure renewable energy operator, Xinyi Energy has been committed to providing green and clean power to the society through its solar farms, reducing the demand for thermal power from terminal electricity consumers and contributing to significant carbon emission reduction for the society while reducing the atmospheric and water pollution caused by traditional energy power generation, thus making a positive contribution to the mitigation of global climate change. In the future, the Group will continue to enhance the scale and operational efficiency of solar farms, while striving to ensure the stability and safety of supply, so as to provide more green power to the society.

In addition, under the global trend of energy transition, enterprises' demands for green power have been increasing, as its value is not only the electricity itself, but also the environmental value added brought by the use of green power. Green power trading can help promote transition towards clean and low-carbon energy and industrial upgrading, and play an important role in promoting the coordinated development of the electricity and carbon markets, thus helping to achieve the Dual Carbon Goals. The national policies vigorously promote green power trading and continuously improve the green power and green certificate trading system. It will effectively raise the level of revenue of green power in the market and provide new energy power generation enterprises with the option to expand their revenue in the era of grid parity, which has bright development prospects. During the Reporting Period, the Group has voluntarily participated in green power trading in Anhui, Guangdong and Shaanxi and fully benefited from the green power premium. It is believed that the scale of participation in green power trading will be further expanded in the future, and the scale of revenue and profitability will continue to rise through green power trading at a price higher than that of electricity sold to grid enterprises. The Group will firmly grasp the development opportunities brought by green power trading and strive to become an important partner for more power-consuming companies to fulfil their sustainability commitments and play a more important role in global climate action.

### **Climate Change and Resilience**

business operations are highly susceptible to climate risk. Climate change may cause physical damage to our solar farm assets, disrupt power supply and even pose a threat to the personal safety of our employees and the public. As global warming intensifies and the number of extreme weather events increases significantly, the Group needs to be prepared to take actions to address the potential business and financial impacts of climate risks and opportunities under different climate scenarios, in order to ensure the stability of electricity supply, improve the emergency response capability of our staff and the resilience of our solar farms under extreme weather. The Board of the Group also attaches great importance to the monitoring of climate-related issues and leads the SDM Committee to further implement its action plan.



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### Responsibilities of the Management (the SDM Committee)

- Assess climate-related risks and opportunities, identify material climate risks and opportunities, provide and submit analysis, recommendations and action plans to the Board for review and oversight
- Allocate funds and resources according to the Group's established climate strategy and determined climate action plan, ensure the implementation of the action plan, and regularly evaluate the progress and effectiveness of the action plan
- Coordinate different business departments to facilitate their effective cooperation on climate action arrangements
- Regularly review climate scenario analysis, assessment results and action plans of climate risks and opportunities, and update them as needed. If there are updates on major climate issues, the updated results should be submitted to the Board in a timely manner, otherwise updates will be reported to the Board in every fixed reporting period

### **Climate Scenario Analysis**

To evaluate the potential impacts of climate risks and opportunities under different climate scenarios on the operation and finance of the Group, the Group formulated three climate scenarios which mainly refer to the following public scenario information:

- Physical environment: Working Group I Report of the Sixth Assessment Report of the United Nations Intergovernmental Panel on Climate Change ("IPCC") ("IPCC AR WG1")
- Socio-economic environment and energy environment: IEA's "An Energy Sector Roadmap to Carbon Neutrality in China" ("China Roadmap"), while the carbon price section also refers to the Network for Greening the Financial System ("NGFS")

Based on the public scenario information listed above, and based on the parameters of the industry and regions in which the Group operates, three climate scenarios are formulated: **accelerated scenario** is an ideal scenario, which is premised on achieving the target of limiting global warming within 1.5°C. However, even if the current climate policies and goals proposed by various countries are fully realised, it is still not enough to meet the conditions of the accelerated scenario. Therefore, the realisation of the accelerated scenario requires all governments to formulate more aggressive climate policies; **pledges scenario** is a mitigation scenario, which is premised on the realisation of the current climate policies and goals proposed by various countries. Therefore, the realisation of the pledges scenario is subject to the proactive implementation of the proposed climate policies by all governments to achieve the established climate goals; **stated policy scenario** is a stable scenario, which is premised on existing policies and measures in all countries not changing in the future (including the assumption that climate policies that are proposed but not implemented will not be implemented). The stated policy scenario is mainly used to assess the changes in the physical risk factors and their impact on the Group's business when no further climate actions are taken. Since in the stated policy scenarios, the climate goals of major countries in the world, including China, will not be met and the achievement of such goals will have a substantial impact on the development of all countries and human survival, the Group believes that all governments will continue to take more active climate policies and actions to mitigate climate change, and accordingly, the probability of physical risks in future operations is expected to be lower than expected under the stated policy scenario.

	Pledges scenario ,<2°C)
Public pathways	<ul> <li>IPCC-SSP1-2.6</li> <li>IEA-APS</li> <li>NGFS-Below 2°C</li> </ul>
Physical environment	
Global average temperature increase <sup>Note 1</sup> (Compared to 1850-1900)	<ul> <li>Short-term:1.2-1.8°C</li> <li>Medium-term:1.3-2.2°C</li> <li>Long-term:1.3-2.4°C</li> </ul>
Global average precipitation <sup>Note 1</sup> (Compared to 1995-2014)	<ul> <li>Short-medium term: low probability of significant increase in average precipitation, but the risk of heavy precipitation and drought increases, that is, rainfall increasing in mid-high latitudes and decreasing in dry subtropical areas</li> <li>Long-term: average precipitation will increase by more than 5%</li> </ul>
Tropical cyclone related precipitation Note 1	<ul> <li>Medium-long term: the proportion of intense tropical cyclones will increase by 13%, and tropical cyclone related precipitation will increase by 14%</li> </ul>





### Stated policy scenario

- IPCC-SSP1-1.9
- IEA-ATS
- NGFS-Net Zero 2050
- Short-term:1.2-1.7°C
- Medium-term:1.2-2.0°C
- Long-term:1.0-1.8°C
- Long tormine ne e
- Short-medium term: average precipitation will not increase significantly, but the risk of heavy precipitation and drought may still increase
- Long-term: average precipitation will increase by less than 5%

- IPCC-SSP5-8.5
- IEA-STEPS
- NGFS-Current policies
- Short-term:1.3-1.9°C
- Medium-term:1.9-3.0°C
- Long-term:3.3-5.7°C
- Short-medium term: the regional rainfall intensity and differences will increase significantly, and the risk of drought and floods increases significantly
- Long-term: average precipitation will increase by more than 10%
- Short-medium term: the proportion of intense tropical cyclones will increase by 10%, and tropical cyclone related precipitation will increase by 11%
- Long-term: the proportion of intense tropical cyclones will increase by 20%, and tropical cyclone related precipitation will increase by 28%

	Pledges scenario 。    (<2°C)	Accelerated scenario (<1.5°C)	Stated policy scenario
Physical environment			
Extreme hot weather <sup>Note 1</sup> (1 in 10 years)	• Medium-long term: a 1-in-10-year extreme heat event between 1850 and 1900 will occur once in less than 2 years, with a 2.6°C increase in temperature	<ul> <li>Short-medium term: a 1-in-10-year extreme heat event will occur once in less than 3 years, with a 1.9°C increase in temperature</li> <li>Long-term: extreme heat events will be less frequent than those in the short-medium term</li> </ul>	<ul> <li>Short-medium term: the frequency of 1-in-10-year extreme heat events will increase significantly to about once every 2 years on average, with an approximately 3.0°C increase in temperature</li> <li>Long-term: a 1-in-10-year extreme heat event will occur once a year on average, with a 5.1°C increase in temperature</li> </ul>
Extreme hot weather <sup>Note 1</sup> (1 in 50 years)	<ul> <li>Medium-long term: a 1-in-50-year extreme heat event between 1850 and 1900 will occur once in less than 4 years, with a 2.7°C increase in temperature</li> </ul>	<ul> <li>Short-medium term: a 1-in-50-year extreme heat event will occur once in less than 6 years, with a 2.0°C increase in temperature</li> <li>Long-term: extreme heat events will be less frequent than those in the short-medium term</li> </ul>	<ul> <li>Short-medium term: the probability of extreme heat events 1-in-50-year will increase significantly to about once every 3 years on average, with an approximately 3.0°C increase in temperature</li> <li>Long-term: a 1-in-50-year extreme heat event will occur once in less than 2 years, with a 5.3°C increase in temperature</li> </ul>
Heavy precipitation events <sup>Note 1</sup> (1 in 10 years)	• Medium-long term: the frequency of 1-in-10- year heavy precipitation will be 1.7 times that of 1850-1900, with a 14% increase in rainfall	<ul> <li>Short-medium term: the frequency of 1-in-10-year heavy precipitation will be 1.5 times that of 1850-1900, with an 11% increase in rainfall</li> <li>Long-term: heavy precipitation events will be less frequent than those in the short-medium term</li> </ul>	<ul> <li>Short-medium term: the frequency of 1-in-10-year heavy precipitation will be twice that of 1850-1900, with over 14% increase in rainfall</li> <li>Long-term: the frequency of 1-in-10-year heavy precipitation will be 2.7 times that of 1850-1900, with over 30% increase in rainfall</li> </ul>

 Between 2030 and 2060, economic growth will double, but the total demand for primary energy will decline
 Implement more aggressive climate policies proposed by all countries based on "carbon neutrality" goals

Pledges scenario

(<2°C)

• Economy will continue

for primary energy

until 2030, but at a

lower rate than the

economic growth rate;

will continue to grow

to grow, and the demand

<u></u> ∎ ∎

Social environment Economic development

Climate policies

• China will implement proposed climate policies and achieve new Nationally Determined Contributions targets

### Accelerated scenario (<1.5°C)

### Stated policy scenario

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- Economic growth

   is similar to the
   assumption under the
   pledges scenario, where
   the demand for primary
   energy will increase until
   2030, but the growth is
   lower than that under
   the pledges scenario;
   By 2060, the total
   primary energy demand
   will decline more than
   that under the pledges
   scenario
- All countries will introduce broader energy policies and supporting measures to accelerate energy transition and reduce carbon emissions
- China will issue corresponding climate policies and supporting measures with the goal of achieving carbon neutrality by 2050. The enhanced measures will focus on accelerating the decarbonisation of the power and industrial sectors, promoting the application of lowcarbon technologies such as renewable energy and new energy vehicles, and improving energy efficiency in the industrial, construction and transport sectors

- Economy will keep growing, but economic output will be linked to energy consumption. Thus, the economic output may double in the next 30 years, while the energy consumption will increase by 50%
- All countries will maintain their current climate policies already in place

	Pledges scenario _→ (<2°C)	Accelerated scenario (<1.5°C)	Stated policy scenario
Social environment			
Common business model	<ul> <li>Shifting from a fossil fuel-dependent economy to an economy driven by renewable energy</li> <li>Accelerating the decarbonisation of the power sector and electrification in industrial and construction sectors</li> </ul>	<ul> <li>More aggressive policies</li> <li>between 2021 and 2025 can</li> <li>lead to an earlier carbon</li> <li>peak compared to the</li> <li>pledges scenario: <ul> <li>Accelerated the</li> <li>decarbonisation</li> <li>in the power and</li> <li>industrial sectors. Coal</li> <li>consumption should</li> <li>be 20% lower than the</li> <li>pledges scenario by</li> <li>2030</li> </ul> </li> <li>Incentivise the power <ul> <li>and industrial sectors</li> <li>to improve energy</li> <li>efficiency through</li> <li>stricter allowance</li> <li>allocation in carbon</li> <li>emission trading system</li> <li>at a rate of 1-2%/year</li> <li>faster than the pledges</li> <li>scenario</li> </ul> </li> <li>Increase the profitability <ul> <li>of renewable energy</li> <li>projects through</li> <li>Electricity Market</li> <li>Reform to attract</li> <li>investments in solar and</li> <li>wind power projects</li> </ul> </li> <li>Accelerating the <ul> <li>electrification/transition</li> <li>to renewables in</li> <li>transport sector</li> </ul> </li> </ul>	<ul> <li>Unable to get rid of the dependence on fossil energy. The final energy consumption continues to grow, with electricity and natural gas providing most of the incremental energy consumption</li> </ul>

Pledges scenario (<2°C) ᠆ᢩᡗᢀᢀᡗ᠋᠋᠋ Energy environment of China Demand for renewable Renewable power energy generation, mainly including wind power and solar PV, will increase sixfold between 2020 and 2060 • The average annual newly installed capacity of wind power and solar PV will be approximately 120 GW between 2025 and 2030 • The average annual newly installed capacity additions of solar PV will be 220 GW between 2030 and 2060 Energy intensity • The energy intensity of GDP will decrease by an average of 3% per year between 2020 and 2030 CO<sub>2</sub> emissions • Carbon emissions per unit of GDP will decrease by an average of 4% per year between 2020 and 2030 Carbon price • 2025: 20 • 2030:80 (US\$/t CO<sub>2</sub>) • 2050: almost 200

Note:

(1) Short-term: between 2021 and 2040; Medium-term: between 2041 and 2060; Long-term: between 2081 and 2100





### Accelerated scenario (<1.5°C)

### Stated policy scenario

<ul> <li>The average annual newly installed capacity of wind power and solar PV will be similar to the pledges scenario before 2025, while 33% more than the pledges scenario between 2025 and 2030</li> <li>The installed capacity addition of wind power and solar PV should be 20% more than the pledges scenario to</li> </ul>	• The annual average newly installed capacity of wind power and solar PV will be approximately 70 GW between 2020 and 2030
<ul> <li>achieve carbon neutrality by 2050</li> <li>The energy intensity of GDP will decrease by an average of 4% per year between 2020 and 2030</li> </ul>	<ul> <li>The energy intensity of GDP will decrease by an average of 2% per year between 2020 and 2030</li> </ul>
• Carbon emissions per unit of GDP will be similar to the pledges scenario before 2025, but will accelerate beyond 2025, providing an average decrease of 6% per year between 2020 and 2030	<ul> <li>Carbon emissions per unit of GDP will decrease by an average of 3% per year between 2020 and 2030</li> </ul>
<ul> <li>2025: 45</li> <li>2030: 90</li> <li>2050: 200</li> </ul>	<ul> <li>2025: 10</li> <li>2030: 20</li> <li>2050: 70</li> </ul>

### **Climate Risks and Responses**

As the Group is a pure operator of solar farms, changes in policies, laws, technologies and markets resulting from the global transition to a lower carbon economy will not post risks to the Group's core business operations and long-term development. Instead, comparing the demand for renewable energy under the stated policy scenario, pledges scenario and accelerated scenario, it is noted that the more aggressive climate targets place a more urgent need for renewables, while as a result, bringing greater development opportunities to the Group. For details of the opportunities brought by climate-related transitions to the Group's business operations and development, please refer to the section headed "Climate Opportunities". This chapter will only disclose changes in physical risk indicators, their impacts on the Group's operations and development, the Group's responses and performance in 2023 under different climate scenarios.

### Risk aspect: Acute risks

Specific climate risks: Typhoons, torrential rains and floods caused by heavy rainfall

### Trends in specific risks based on climate scenario analysis:

- The intensity of tropical cyclones significantly increased. The proportion of intense tropical storms/ typhoons will increase by 10% even under the accelerated scenario, and the probability of intense tropical storms/typhoons will double without taking more aggressive climate actions
- The probability of heavy rainfall and flooding accompanied by typhoons will increase significantly. Under the stated policy scenario, tropical cyclone related precipitation will increase by 28%
- The frequency of torrential rain will increase significantly. Even under the accelerated scenario, heavy precipitation events will be 1.5 times more frequent than the past over the next 20 years, with at least an 11% increase in rainfall

Trends in the level of impact in 2023

### Potential impacts on the Company's business

 Typhoons and floods could damage modules and other equipment, which affects power generation efficiency, and in serious cases, cause safety incidents that endanger the safety of staff or nearby communities • Torrential rains could affect power generation efficiency, render 0&M more difficult and

### **Potential financial impacts**

Revenue reduction

riskier

Ø 

- Increase in the costs of O&M
- Asset impairment due to the damage/early retirement of equipment

### Specific climate risks: Typhoons, torrential rains and floods caused by heavy rainfall

### Responses

✓ —✓ —

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- which the Company operates;
- historical operation period, and improve the emergency response capability of employees;
- extreme weather:
- plants' resilience against extreme weather;
- the impact of heavy rainfall on power generation;
- designed for various power plants and the particular natural hazards with high probability

### Performance in 2023

- generation);
- factors:

### Note:

generation, thus the amount of electricity generated in 2023 was less than that in 2022.)



• We have established emergency management system and prepared contingency plans for possible emergency incidents caused by typhoons, strong convective weather and floods within the regions in

• Strengthen emergency drills pertinent to the frequent natural disasters for different solar farms during

• We perform 24-hour real-time monitoring through centralised 0&M platform to effectively identify and timely address abnormalities, in order to reduce the effect of emergent safety incidents caused by

• We improve our judgment of high-incidence periods of extreme weather based on the intelligent analysis of historical operation data by big data system. We could conduct targeted safety inspection concerning wind and flood control, and specific investigation to eliminate safety risks, so as to enhance the power

• We improve our power generation efficiency through centralised and intelligent 0&M, thereby mitigating

• We also enhance our power plants' resilience against extreme weather by adding protective measures

 During the Reporting Period, the Group effectively prevented relevant natural disasters based on a list of early warning and emergency response for heavy rainfall and typhoons. The loss of power generation due to extreme weather conditions were minimal during the Year, totalling 219,100 kWh for the year (the number of equipment failures was not counted by 0&M in 2023 and was replaced with the loss of power

 We improved safety inspection through drone system and intelligent 0&M system ("intelligent management system"), which aims to reduce/avoid outdoor work activities for employees in abnormal weather. In 2023, the Group experienced no occupational injuries and safety incidents caused by climate

During the Reporting Period, the average utilisation rate<sup>Note 1</sup> of the Group's solar farms was 96.1%

(1) Average utilisation rate = Actual hours of utilisation for the Year (weighted average)/estimated maximum hours of utilisation for the Year (weighted average). The 2023 forecast was 1,232.39 hours, actual utilisation was 1,184.65 hours (2022 was major year for power

# Risk aspect: Chronic risks

Specific climate risks: Changes in precipitation patterns, rising average temperatures and more frequent extreme heat

### - Trends in specific risks based on climate scenario analysis:

- As temperatures continue to rise, exposure to extreme heat may quadruple. Global average temperatures could still rise by more than 1.5°C over the next 20 years even under the accelerated scenario. The 1-in-10year extremely hot weather in the past may intensify to 1-in-3-year, and may worsen to once per year under the stated policy scenario
- Increasing rainfall but with more asymmetric distribution could lead to apparent drought and flood disasters. The water-holding capacity of air increases by about 7% per 1°C of global warming. Although the global annual average precipitation has not increased significantly while the temperature has increased by over 1.1°C, the regional precipitation unevenness has been enlarged, which means fewer light rains but more torrential rains, and precipitation decrease in dry subtropical areas but increase in mid-to-high latitudes. Such unevenness will not change even under the accelerated scenario and may multiply under the stated policy scenario

Trends in the level of impact in 2023

### Potential impacts on the Company's business

- The risen average temperature and the significantly increased probability of extreme heat will heighten the risk of front-line O&M staff working outdoors, affect our scheduling and work efficiency, and increase the risk of fire as well
- The increased precipitation and regional precipitation unevenness will have an impact on the power generation of solar farm projects in mid-to-high latitudes where the rainfall increases significantly/the torrential rain increases. Both torrential rain and flood will heighten the risk of operation, maintenance and inspection for the staff. However, in lower latitudes with possible decline in precipitation, the production of agricultural-PV complementary solar farms may be affected. However, the increasing number of sunny days has a positive impact on power generation

### **Potential financial impacts**

Revenue reduction

Ø 

• Increase in the costs of O&M

### Specific climate risks: Changes in precipitation patterns, rising average temperatures and more frequent extreme heat

### Responses

✓✓✓✓

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- prevention, cooling and fire prevention measures;
- •
- contingency response capabilities through training and flood contingency drills;

### Performance in 2023

- resulted in a loss of 1,188 pieces of modules;
- working under high temperature and safety incidents caused by high temperature



• We conduct targeted fire safety inspections in summer to ensure the implementation of heatstroke

We minimise outdoor working hours or stop outdoor activities as much as possible under high temperature through centralised and intelligent 0&M, and measures such as ensuring sufficient rest and distributing heatstroke prevention equipment and supplements to protect the health of our staff;

We regularly inspect and check the water and flood drainage system in our solar farms to ensure the full and efficient operation of the facilities, while also strengthening our staff's safety awareness and

We replace staff inspection with drones under abnormal weather to ensure the safety of our staff;

• We enhance the power generation efficiency with centralised and intelligent 0&M, whether it is under sunny days, cloudy days or light rain, to mitigate the impact of abnormal weather on annual power generation, while also alleviating the effect of rainfall and sunlight fluctuation between different years

• During the Reporting Period, the Group focused on fire emergency drills to enhance the emergency response capabilities of front-line O&M staff, and enhanced employees' awareness of safety precautions through preventive training. During the Reporting Period, the Group suffered a major fire incident which

• We use the intelligent management system to strengthen safety inspection, reasonably adjust the outdoor working arrangements for employees under high temperature, and provide sufficient labour protective equipment and distribute heatstroke prevention and relief equipment and supplements to ensure the health and safety of employees. In 2023, the Group experienced no occupational injuries caused by

### **Climate Opportunities**

According to the TCFD recommendations, common climate transition risk factors mainly arise from four categories: policy and regulation, technology, market and reputation. With risks and opportunities coexisting, considering that the transition to a low-carbon economy will increase the demand for green power and the investment enthusiasm in renewable energy power plant projects, it is expected to bring considerable development opportunities to the Group. The followings are the disclosures of climate opportunities and actions taken by the Group in respect of the aforesaid four categories based on climate scenario analysis:

	Opportunities:	es: For the achievement of the Dual Carbon Goals and new Nationall Determined Contributions targets proposed in 2020, China shoul accelerate the transition to carbon neutrality in energy sector an the electrification of industrial and transport sectors to improv the efficiency of industrial energy consumption. Therefore, policie will be introduced to support the above targets in China, such a promoting renewable energy investment, encouraging the increas in installed capacity for renewable energy, and building an improving green power trading and carbon emission trading				
	Potential financial impacts:	<ul> <li>Expanding revenue sources</li> <li>Increased return on investment of grid-parity projects</li> <li>Increase in revenue</li> <li>Asset appreciation</li> </ul>				
Policy and regulation	Actions:	<ul> <li>We could increase the sales of electricity by seizing the opportunity of increased investment in renewable energy projects in China, increasing the total installed capacity through the acquisition of high-quality solar farm projects, and improving power generation efficiency through optimised 0&amp;M. We secured new solar farm projects of 636.5 MW in 2023 and plan to add new solar farm projects of 700 to 1,000 MW in 2024 to maintain rapid growth of installed capacity;</li> <li>During the Reporting Period, the Group actively explored opportunities for green power trading to increase the average selling price of electricity generated from grid-parity solar farm projects, thereby increasing revenue</li> </ul>				





A transition is expected in the O&M system from traditional O&M of decentralisation and generality to intelligent O&M of centralisation

• Increased revenue from professional O&M services • Increased revenue from electricity sales due to improved power generation efficiency

Reduction of the costs of O&M

• The Group independently developed and has been continuously improving the centralised O&M platform. A centralised and intelligent O&M model is established through the integration of drone system, intelligent management system and big data system, to improve O&M efficiency and reduce the impact of natural risks, equipment failure and other factors on power generation so as to improve the power generation efficiency • As of the end of 2023, the Group provided professional O&M services for solar farm projects with an installed capacity of approximately 5.9 GW

To achieve the Dual Carbon Goals, China will implement relevant policies to support decarbonisation activities and application of renewable energy, such as improving green power trading, strengthening carbon emissions trading and promoting the electrification in the industrial, construction and transport sectors. Referring to different climate scenarios, carbon trading price could rise by 10 times or more in the next 10 years under such scenarios except for the stated policy scenario. The increase in carbon trading price will stimulate the demand for green power. In addition, electrification will increase the proportion of electricity in terminal energy demand. Additional demand will be mostly satisfied by renewable energy, and green power trading will bring additional environmental benefits. Therefore, the average selling price of grid-parity projects of the Group is expected to increase

- Increase in revenue
  - Expanding revenue sources
  - Increased return on investment of grid-parity projects Asset appreciation

We could provide more green power for the society by increasing the installed capacity of solar farms and improving the efficiency of power generation through intelligent O&M, while also actively participating in green power trading to expand revenue

- Opportunities:

Severe global climate conditions has prompted key stakeholders to place more attention on sustainability and environmental protection performance of enterprises. As an enterprise solely engaged in renewable energy power generation, the Group's operates with negative carbon emissions for an extended period of time, which, together with the highly flexible business model, the strong adaptability to climate change and the importance attached by all stakeholders to environmental protection performance, will enable the Group's business and brand value to be more widely recognised and enhanced

Expanding financing channels and boosting financing capacity

Potential financial impacts:

Actions:

Reputation

The Board enhanced supervision on ESG matters of the Group, continuously improving our ESG performance and governance to comply with international and industry's best practice. By enriching the content of annual ESG report and enhancing relevant disclosure, we provide quantified and more comprehensive data and information to key stakeholders, in order to respond to the ESG matters they are most concerned with and ensure that they understand the Group's commitment on major ESG matters and the progress of corporate sustainable development goals. During the Reporting Period, Xinyi Energy actively participated in the ESG evaluation survey of a professional third-party institution to respond to ESG disclosure demands of stakeholders. Xinyi Energy was consecutively awarded the "Best in ESG Awards-Middle Market Capitalisation" by BDO Limited during 2021 and 2022. During the Reporting Period, the Group was honoured with the "Outstanding Listed Company Award 2023" by renowned media and financial sectors in Mainland China and Hong Kong, which demonstrated that the Group's performance in the areas of corporate governance and environmental, social and governance ("ESG") has been highly recognised by the capital market and various sectors of the community. In addition, Xinyi Energy has also secured green loans from various banks in Hong Kong with its green business initiative, providing strong financial support for continuous improvement of business scale







### **Energy Saving and Emission Reduction**

As PV power generation does not consume fossil fuels and water resources and involves no machinery operations, PV modules produce no pollutions or emissions when converting solar power to electricity, nor do them bring any adverse effect to air, water and acoustic. Based on an environmental friendly power generation process, green power with close-to-zero carbon emission can replace coal-fired power in the terminal end and contribute significant CO<sub>2</sub> emission reduction for the society. Meanwhile, the decreased demand of coal-fired power also leads to the reduction in fossil fuels and water resources consumption during coal-fired power generation. This will reduce the emission of air pollutants (sulphur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>2</sub>), particulates (dust)), sewage discharge and hazardous waste discharge and reduce the pollution of the atmospheric environment and water environment of the community.

Even though PV power generation does not consume any energy or water resources or generate any pollutions, the operation of solar farms and/or work and daily lives of our front-line O&M staff at the power plants would still consume energy (mainly externally-purchased electricity) and water resources, and thus generate pollutions. The Group has established and continued to improve its internal environmental regulation system in order to reduce the negative impact on the environment and natural resources during the 0&M process. On top of strict compliance with the environmental laws and regulations in China and regions in which our operations locate, the Group also ensures that it obeys the established internal environmental management codes and governance procedures in its daily environmental management, and receives supervision from local environmental protection regulators.

more efficient green 0&M model with lower emissions:





### During the Reporting Period, the Group adopted the following environmental governance measures with the aim of exploring



- Implementing intelligent 0&M through a centralised O&M platform to improve efficiency on patrols and inspections, reduce the frequency of patrols and inspections as well as the usage of vehicles, so as to reduce the direct emission density generated by vehicles
- Predicting potential faults, early identifying and precisely positioning faulty equipment through intelligent O&M. Handling faults on a timely basis to reduce the impacts on power generation, so as to reduce the purchase of electricity externally and indirect emission density
- ٠ Advocating the concepts of energy conservation and environmental protection, and guiding the staff to consciously reduce unnecessary electricity consumption in daily work and life, such as turning off the lights that are not being used or turning off idle electrical appliances, etc.
- Precisely positioning faulty equipment with the use of drone system to greatly reduce the operation intensity of O&M staff and deploy vehicles in a more reasonable way
- ٠ Improving efficiency on patrols and inspections with the use of intelligent management system, so as to reduce the frequency of patrols and inspections as well as the usage of vehicles

Activities that generate emissions/

involve resource consumption in solar Major governance measures farms operation and management

Pollutant emissions		
Waste discharge	<ul> <li>The hazardous wastes generated in the daily O&amp;M of the solar farms mainly include disused solar modules, as well as a small amount of disused batteries, etc.</li> <li>Non-hazardous wastes mainly include domestic garbage</li> </ul>	<ul> <li>Strictly complying with the laws and regulations on the treatment of hazardous materials such as the Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Waste (《中華人民共和國固體廢物污 染環境防治法》) and the Standard for Pollution Control on Hazardous Waste Storage (GB18597-2001) (《危險廢物貯存污染控制標準 (GB18597-2001)》), to entrust qualified agencies for disposal and is under the supervision of local regulatory authorities</li> <li>Main transformers and box-type transformer substations are protected by anti-seepage treatment with collection tanks placed underneath and are regularly inspected manually and monitored via intelligent management system to prevent water pollution from oil leaking</li> <li>Internal waste recovery of those recyclable, such as disused solar modules, disused batteries, etc., or sending them to module recycling companies</li> </ul>

 Realising paperless 0&M through the intelligent management system, including the automatically generated personal work log of the O&M staff and their duty log in the solar farms, electronic work order and operation order, online material procurement declaration and approval, etc.

for centralised recycling

Activities that generate emissions/

### **Resources consumption**



• Energy consumption mainly comes from the electricity used in offices, solar farms and by staff, and the gasoline and diesel consumed by vehicles, with the electricity purchased externally accounting for 96.4% of total energy consumption

• Mostly the water consumed in office buildings at solar farms and by staff's domestic usage



Water resources consumption





involve resource consumption in solar Major governance measures farms operation and management

- Implementing intelligent O&M through a centralised O&M platform to improve efficiency on patrols and inspections, reduce the frequency of patrols and inspections as well as the usage of vehicles, so as to reduce vehicles fuel consumption
- ٠ Early identifying, precisely positioning and handling faults on a timely basis through intelligent O&M to reduce the impacts on power generation, so as to reduce the purchase of electricity externally
- Advocating the concepts of energy conservation and environmental protection, comprehensively promoting the district-based management model so as to reduce the use of electricity by staff in daily work and life
- Promoting energy conservation and environmental • protection concepts and encouraging staff to consciously reduce unnecessary use of water in daily work and life. Domestic sewage is released to the local sewage network after filtration in sedimentation tank for further treatment in sewage plants. The sedimentation tank is regularly cleaned in compliance with the environmental protection requirements
- ٠ Cleaning modules with environmental friendly method (waterless or with natural water) to effectively reduce water consumption in solar farm 0&M process
- Making plans for and supervising the use of water ٠ at solar farms to prevent unnecessary water consumption and avoid wastage of water

During the Reporting Period, the Group newly acquired 636.5 MW solar farm projects, driving the total approved capacity to increase by approximately 22.6% year-on-year. However, the Group's sales of electricity grew by 20.0% year-on-year during the Reporting Period, as the solar energy resources in 2023 was relatively little amount and the efficiency of electricity generation is slightly weaker than that of the same period in 2022. Due to the continuous increase in the scale of operations, the Group recorded growth in total energy consumption, greenhouse gas emissions, air pollutant emissions and waste emissions during the Year. However, benefited from the intelligent 0&M, the 0&M efficiency and power generation efficiency have been improved, resulting in a decrease in the consumption intensity of energy and water resources, the emission intensity of greenhouse gases and wastes, indicating that the Group has further improved the energy and resource efficiency of the 0&M process and reduced the negative impact on the environment. For the performance of the Group's core environmental indicators during the Year, please refer to pages 99 to 105, which has been disclosed in the "**2023 SUSTAINABILITY DATA SUMMARY**" section.

During the Reporting Period, the energy consumption, water consumption and greenhouse gas emissions  $^{Note 1}$  per million kWh of electricity sold by the Group decreased by 1.6%, 20.2% and 32.8% respectively to 8,670 kWh, 4.22 m<sup>3</sup> and 4.86 tonnes of CO<sub>2</sub> equivalent. By comparing with the data on energy consumption and emissions per unit of thermal power generation, it is sufficient to prove that PV power is of great significance in promoting the decarbonisation of the energy system and reducing pollution to the atmosphere and water environment.

Note 1: Based on the emission coefficient set out in "China Power Industry Annual Development Report" (《中國電力行業年度發展報告》) issued in 2023, electricity emission factor is adjusted from 0.828 to 0.5703

### **Ecological Environment and Biodiversity**

In June 2022, the State-owned Assets Supervision and Administration Commission and other departments jointly issued the Action Plan for Industrial Energy Efficiency Improvement, which proposed to promote the innovation and upgrade of intelligent photovoltaic and industry-specific applications, innovative "PV+" mode, and the diversified layout of PV power generation. "PV+" represents the deep integration of PV power generation and traditional multi-industries, which includes both the integration with traditional industries and the integration with different power generation models, such as "PV + agriculture, forestry, animal husbandry and fishery", "PV + ecological restoration", etc. It has the advantages of broadening the application scenarios, improving economic efficiency, protecting ecological environment and biodiversity.

The Group attaches great importance to the compliance of environmental management during the development of solar farm projects and the protection of local ecological environment and biological resources, and that is why we actively seek partners who uphold the same concept of sustainability with the Group. For potential acquisition projects under construction, the Group will clarify with power plant developers the requirements of developing and constructing solar farms in the mode of "ecological coexistence", and maintain effective communication with developers to continuously monitor their environmental compliance and ecological impact of the development and construction process. As for projects that have been completed and grid-connected, we will strictly review the environmental assessment report and delegate internal professional staff to evaluate the environmental performance and ecological status of the completed projects before acquisition, to ensure that the projects meet the requirements of the Group in respect of environmental and ecological protection, and have taken effective measures to protect biodiversity and ecological environment in the development and construction process. Additionally, when selecting acquisition targets, we focus more on power plant projects with better environmental, social and economic benefits, such as agricultural-PV complementary solar farms, fishery-PV complementary solar farms and floating solar farms. During the Reporting Period, among the newly acquired solar farms with a total capacity of 636.5 MW, 70.7% were agricultural-PV complementary solar farms and 29.3% were fishery-PV complementary solar farms. As of the end of 2023, 67.0% of the existing projects of the Group were agricultural-PV complementary solar farms/fishery-PV complementary solar farms/ floating solar farms. While making full use of land and water resources, it had a positive impact on the protection of the local ecological environment and the control of biodiversity loss.

Adhering to the corporate mission of "Empowering the Green Era", the Group pays perennial attention to industrial innovations, while actively exploring the combination of PV power generation with other industries. By acquiring solar farm projects which are developed and constructed in an "ecological coexistence" model, the Group unlocks more PV power generation application scenarios. Through a centralised and intelligent 0&M mode, the Group lowers the adverse impact of the 0&M process on the environment while improving power generation efficiency. On the basis of maximising the environmental benefits of its own business operations, the Group proposes to build a green energy ecosystem by supplying green power to the society, providing stable employment opportunities for local farmers and aquaculturists, opening PV science bases and conducting campus lectures, by which means more social groups can have access to PV power generation, and experience the environmental and economic benefits brought by PV power generation in person, which will eventually be transformed into actions to promote, apply and consume renewable energy.







Different from traditional fossil energy power plant projects, PV power generation does not involve the consumption of fuel and water, therefore the power generation process is ecologically friendly and has little negative impact on local animals and plants. Nevertheless, the Group still takes active actions to enhance the protection of biodiversity, including: (1) selecting appropriate cash crops, food crops and plant vegetation to grow plants under solar panels according to local natural environment and resources, in order to maintain biodiversity and ecological balance; (2) raising sheep, crayfish and other aquacultural animals under PV panels to enrich local biodiversity; (3) planting trees to consolidate the soil and reduce soil erosion; (4) floating power plants block sunlight to prevent eutrophication of the water bodies, in order to protect water quality and ecological balance; (5) opening PV greenhouses and eco-industrial parks to improve the awareness of biodiversity among different social groups; (6) floating power plants built in coal mining subsidence area can transform the wasteland into productive land and gradually improve the surrounding ecosystem and environment.



Haikou Agricultural-PV Complementary Solar Farm



Heshan Agricultural-PV Complementary Solar Farm





Shouxian Fishery-PV Complementary Solar Farm



Huaibei (coal mining subsidence area) Floating Solar Farm



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Xiaochang Agricultural-PV Complementary Solar Farm

Bozhou (medical herb planting) Solar Farm

### Sustainable Finance

Sustainable finance was one of the key topics at the 27th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP27), and is a major trend for future sustainability actions. Through sustainable investment products offered by the financial sector, companies can increase their access to funds and channels for climate action and contribute to the mitigation of global climate change.

Xinyi Energy's efforts in ESG have been recognised by different sectors of the society, and awarded the Green Finance Preissuance Stage Certificate under the "Green and Sustainable Finance Certification Scheme" launched by the Hong Kong Quality Assurance Agency in 2021. As one of the advocates of sustainable finance, the Group continued to secure its sustainabilitylinked loans from DBS Bank and use Green Finance Pre-issuance Stage Certificate through Bank of China, amount of HK\$1.7 billion in 2023. The sustainability-linked loan has a term of three years and will be offered at a tiered preferential interest rate by DBS Bank when Xinyi Energy meets pre-determined ESG-related sustainability performance targets, including green power generated from its solar farms and the corresponding CO, emission reduction reaching pre-determined targets. The sustainability-linked loans encourage companies to make progress in environmentally and socially beneficial areas through pre-determined sustainability goals. The principles of such loans are in line with the Group's commitment to sustainable development. The Group will continue to make good use of green and sustainable financing channels to capitalise on the development opportunities in the field of renewable energy power generation, and steadily increase the scale of renewable energy power plants. We will firmly commit to social responsibilities, fully support China in achieving its Dual Carbon Goals and bring benefits to stakeholders.

In addition, Xinyi Energy has also obtained green loans from a number of Hong Kong banks to provide strong financial support for the continuous increase of its business scale by virtue of its green business model.



Environmental, Social and Governance Report
2023



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# ENHANCING CORPORATE GOVERNANCE

Strong governance is important for ensuring sustainable development and business growth. The Board's attention to ESG issues and effective monitoring will enable the Company to avoid ESG risks and seize relevant opportunities. The Group is committed to continuously improving its ESG governance structure and system, integrating ESG into its development strategy and operations, adopting business conduct and ethical standards in line with international best practices, actively fulfilling corporate environmental and social responsibilities and practising the principles of sustainability for the long-term benefit of stakeholders.





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### **ENHANCING CORPORATE GOVERNANCE**

### Sustainability Governance Structure

Good corporate governance is a strong support for the orderly development of a company's business and a safeguard for the interests of shareholders and other stakeholders. The Group is committed to continuously improving its standard of corporate governance, with a rigorous governance structure, effective risk management and internal control systems to put the governance philosophy of openness, transparency, accountability, efficiency, compliance and integrity in practice. In order to safeguard the best interests of various stakeholders, the Group has continued to improve its ESG management system and governance structure. Regarding the governance responsibilities and terms of reference of the Board and its Remuneration Committee, Audit Committee, Nomination Committee and Acquisition Committee in other areas of the Group's work, the Group has formulated relevant procedures and regulations in accordance with the requirements of the Corporate Governance Code and made relevant disclosures in the "Corporate Governance Report" section of the Annual Report 2023 of Xinyi Energy.

The Chairman of the Board and the CEO of Xinyi Energy are held by different individuals in order to distinguish their duties and responsibilities and to ensure the independence of the Board's operation from the management of the Group's business. The Group attaches great importance to board diversity and the selection of board members is governed by the Board Diversity Policy. The Nomination Committee will consider a variety of factors when nominating candidates, including but not limited to gender, age, cultural and educational background, professional experience, skills, knowledge and years of service, in order to achieve a diverse board environment. A number of members have environmental, social and governance expertise and indepth knowledge of relevant issues and trends. As at the date of this report, the Board of the Group consists of four executive directors and three independent non-executive directors, of whom 14.3% are women.



The Group's sustainability governance adopts a top-down strategic approach. Daily management and supervision are conducted by the Board, the Group's highest governance body, and the SDM Committee comprising the CEO and other senior management, fulfilling our commitment to sustainability. We are fully aware that only by establishing an effective ESG governance structure and continuously improving it can the Group more fully grasp ESG-related opportunities in future operations and long-term development, and more acutely identify and respond to ESG-related risks, so as to achieve sustainable business and enhance long-term resilience.



### **ENHANCING CORPORATE GOVERNANCE**

The Board established the SDM Committee, which is led by the CEO and is responsible for the daily management and supervision of important ESG matters like safety production, occupational health and environmental management. The SDM Committee assists the CEO in carrying out related work, including but not limited to:

- Formulate annual, mid- and long-term plans
- Spur the executive departments to strictly implement such plans and monitor the progress
- Organise the preparation of annual ESG reports and participate in materiality assessment
- Regularly report to the CEO on relevant work performance, ESG KPI performance and the progress of corporate sustainable development goals

The CEO is responsible for approving and submitting annual ESG reports to the Board, reporting on the ESG key performance indicators and progress of sustainable development goals. Upon obtaining approval from the Board, we will publish annual ESG reports to ensure that key stakeholders could regularly receive ESG related work progress and performance of the Group. During the Reporting Period, the ESG key performance indicators and the progress of corporate sustainable development goals were reported by the executive departments to the SDM Committee Office on a monthly basis. Relevant data and information is consolidated and compiled by the SDM Committee Office and then submitted to the SDM Committee on a regular basis.

### **Business Ethics**

Xinyi Energy attaches great importance to legal, honest and ethical business philosophy and considers business ethics as one of the most important issues. Business ethics is the superior principle, value and standard of conduct that the Group firmly follows to ensure a fair and transparent business environment on the basis of strict compliance with the laws and regulations of the country and regions in which we operate. It also ensures the Group would achieve its own sustainable development. The Group has always adhered to the core corporate values and sustainability approach in our daily operations. We followed United Nations Global Compact's 10 Principles, took the initiative to perform our basic responsibilities in terms of human rights, labour standards, environment and anti-corruption and enhanced the performance in relevant aspects by referencing local and international best practice.

### **Compliance with Laws and Regulations**

During the Reporting Period, the Group strictly complied with the national laws in China and the local regulations and rules in the places in which the solar farm projects are located, to establish, implement and continuously improve the corporate standards for safety production, environmental protection, pollution control, energy use, employment relationship, corporate operation and governance, thereby ensuring law-abiding and compliant operation. During the Reporting Period, the Board was the supreme governing body for the Group's ESG matters and assumed leadership and oversight responsibility for the Group's ESG matters. The relevant laws and regulations that had a significant impact on the Group include:





- Law of the People's Republic of China on the Prevention and Control of Pollution from Environmental Noise
  Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Waste
  - ncy Response Law of the People's Republic of China
  - Catalogue of Hazardous Wastes (2021)

Rules on the Labour Protection of Female Employees he People's Republic of China on the Prevention and of Occupational Diseases

• Employment Ordinance of Hong Kong

on of Bribery Ordinance of Hong Kong Power Law of the People's Republic of China ne People's Republic of China on Work Safety trol Law of the People's Republic of China

### **ENHANCING CORPORATE GOVERNANCE**

During the Reporting Period, the Group did not recognise any non-compliances, claims and/or major legal disputes that had a significant impact on the Group concerning the above aspects in its operation.

### **Respect for Human Rights**

The Group respects and observes various internationally recognised human rights. Not only would the Group strive to avoid infringing human rights in terms of its own business operation and talent management, the Group would also procure its business partners to respect and protect human rights, and proactively call on the upstream and downstream participants along the value chain and enterprises which have potential business relationships/cooperation with the Group to share the principles and philosophies in terms of human rights. The Group strives to achieve the followings in terms of respecting and protecting human rights:

- Expand business scale and enhance operational efficiency, facilitate local employment in the regions in which our operation locates, provide job opportunities and ensure equal remuneration and rewards, and safeguard the basic right of "Everyone has the right to work";
- Create a fair, equal, diversified and inclusive working environment, covering the whole employment process from recruitment. We shall root out any discrimination, and have zero tolerance to child labour, forced labour and other actions that infringe children rights and basic human rights;
- Strengthen safety production management, continuously improve the occupational health management system, ensure
  employees' occupational health and work safety, and prevent occupational diseases and work related potential risks
  that can endanger the health and safety of the employees;
- Proactively undertake the responsibility of environmental protection, provide more green power to the society and replace part of the demand for coal-fired electricity by expanding the scale of our solar farms, in order to reduce the emission of CO<sub>2</sub>, other greenhouse gas emissions and other air pollutants as well as wastewater discharge, which would gradually improve the air and water quality in the regions in which our operation locates, promote the alleviation of the extreme climate and natural disasters caused by climate change, and further reduce the number of diseased individuals, injuries and deaths caused by air pollution, water pollution and natural disasters, and protect the lives and health of more people.

During the Reporting Period, the Group had not experienced any material incidents concerning the non-compliance of relevant laws and regulations that forbid the use of child labour, forced labour, employment discrimination or protect human rights.

### Anti-corruption and Whistleblowing Mechanism

The Group strictly complies with the corruption and bribery related provisions of the Criminal Law of the People's Republic of China (《中華人民共和國刑法》), Anti-unfair Competition Law of the People's Republic of China (《中華人民共和國反不正當競爭法》), Prevention of Bribery Ordinance of Hong Kong (香港《防止賄賂條例》) and other laws and regulations, and implements tight regulations on corporate business behaviour and internal integrity management according to the existing Integrity Management System (《廉潔管理制度》), requiring all employees to stick to the bottom line of integrity. We are committed to stringent prevention, investigation and punishment for illegal acts and non-compliances such as internal corruptions and employees' illegal acceptance of cash/benefits in kind or other benefits by taking advantage of their job positions, or offering of bribes or other illegal benefits to customers/regulators/government authorities or other partners.

The Group has established an internal regulatory body to carry out regular monitoring and control, while also enhancing our internal monitoring and control effort through continuous improvement of the monitoring and control process, whistleblowing channels, code of conduct and reward and punishment system, in order to guide our employees in strengthening their self-discipline, keep them away from the "high tension line" of corruption, prevent them from conducting any bribes, frauds and other dishonesties. During the Reporting Period, the Group followed the whistleblowing system for integrity related matters. For employees who violate the internal integrity system and are suspected of job-related offences, the internal regulatory body will make an announcement through email and the WeChat official account to internal bodies and the society within the prescribed time after the closure of the case.

The Group places huge emphasis on cultivating the principle of integrity among our management members and all employees. During the Reporting Period, the Group organised a total of 110 hours of integrity-related training with 109 participants, mainly for employees in departments/positions that have been evaluated by the internal regulatory body to have integrity risk. The integrity training covers integrity management system, integrity cases and other aspects.



On top of the above internal regulations, integrity training and regular assessments to strengthen integrity management, the Group provides multiple whistleblowing channels such as mails, emails and phone calls, and encourages employees, partners along the value chain and others in different sectors of the society to timely report to the Group if they are aware of any corruptions related or potentially related to the Group.

In addition to attaching great importance to and preventing corruptions within the corporation and its business activities, the Group also calls on the upstream and downstream participants along the value chain to cooperate. Through obeying laws and regulations, accepting monitoring and control from the government and the society, strengthening the internal management on corruptions in operations and mutual supervision among value chain partners, it is hoped that corruptions of all formats along the value chain will be significantly reduced, thereby maintaining a more equal, just and transparent operating environment.

During the Reporting Period, there was no concluded litigation raised against the Group or its employees concerning corruption; nor was the Group aware of any significant incompliance related to integrity that had material effect on the Group.

While we safeguard the stable supply of green power, we also attach great importance to the safety of our employees, and the completeness of the life cycle of the solar farm assets. We insist on implementing "**GREEN**" mode to carry out the operation management of our solar farms, and setting up standards, goals and monitoring mechanisms in five aspects, namely green and eco-friendly, reliable and safe, established emergency mechanism, E-platform for intelligent 0&M, and neighbour engagement, so as to prevent the occurrence of electrical accidents to the greatest extent. We actively explore and optimise the intelligent 0&M mode for the solar farms, and adopt effective measures to protect the quality solar farm assets, thus enhancing the efficiency and stability of electricity generation, and achieving more environmental, economic and social benefits.

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### Safety Production and Risk Management

The main risks that the solar farms of the Group involve during the operation are safety production risk, critical equipment failure risk, risk arising from natural disasters, and safety risk on energy storage systems. Safeguarding the safe operation of solar farms, guaranteeing the stable supply of electricity, and preventing the occurrence of different types of electricity safety incidents, are of utmost importance to the operation and long-term development of power generation enterprises, while regulated safety management and systematic risk management are the prerequisite in achieving the above.

To ensure the safe and efficient operation of the solar farms of the Group, according to the Electric Power Law of the People's Republic of China (《中華人民共和國電力法》), Law of the People's Republic of China on Work Safety (《中華人民共和國安 全生產法》) (effective from 1 September 2021), the Regulations on the Standardisation of Safety Production for Photovoltaic Power Generation Enterprises (No.127 [2015], National Energy Administration) (《光伏發電企業安全生產標準化創建規範》 (國能安全[2015]127號)), and the Regulations on the Major Safety Production Responsibilities of Production and Operation Units (《生產經營單位安全生產主體責任規定》) of various provinces and cities and the requirements of safety production standardised system, the Group has formulated a Safety Management System (《安全管理制度》), and has established a safety production management system. The Group also implemented the system of "one post, one responsibility", and delegated respective safety production responsibilities to all the staff. The safety production system is continuously improved, in an effort to provide a safe and reliable working environment for the employees, and to achieve annual and mid- to longterm safety production goals.



### Safety Management Structure and Governance Responsibility

The Group's safety production management is based on three-tier structure. Each tier has strict requirements on its responsibilities. By virtue of the coordination of the SDM Committee Office, it ensures that execution departments will consistently comply with and implement the established safety management principles and regulations of the Group, and that all solar farms and all departments at the headquarter of the Company will timely report any safety incidents to the SDM Committee.



### Safety Performance

and loopholes, formulate and improve policies in a timely manner, and maintain a record of no fatality and serious injury at working premises. During the Year, the Group recorded no incident of work-related injuries and the total number of working days lost due to work-related injuries was 188 (for the recovery period of the injured employees in Suiping in 2022). During the Reporting Period, the Group provided 826 hours of safety training, providing training to the frontline O&M staff on the safety guidelines and safe operating procedures relating to the solar farms. It aims to continuously enhance the skills, experience and safety awareness of the staff to comply with the established safety management system of the Group self-consciously, to operate in accordance with standardised procedures, and to identify and prevent safety risk actively.



### **Risk Management & Control and Emergency Response**

As the core business department of the Group, the 0&M System is responsible for the daily 0&M of solar farm projects, and providing solar farm 0&M services to third parties. Thus, the 0&M System is also the main execution department of the Group's safety production plan. The core safety production work of the Group can be classified as regular risk management and control and emergency response.



### **Risk management and control**

The Group strictly comply with the national, local and industrial safety production management regulations and ordinances. It has established standardised procedures for the main tasks of three core aspects including safety education, safety inspection and supervision and safety assessment, and has established an effective reward and penalty system as a positive incentive to motivate employees to implement safety production management and actively improve safety performance. Promotion and guidance as well as actual training are regularly organised, while inspection and elimination as well as rectification of on-site sources of risks are regularly implemented, which gives the precaution and inspection of the centralised control and management to the production site into full play. To avoid the failure risk of the critical equipment of the solar farms, the Group continuously strengthens the failure precaution and the maintenance of equipment. Precautionary testing and inspection as well as professional skills training are regularly carried out, and the Group also ensures safety stock of main parts and vulnerable parts. In the meantime, the Group continuously improves different disaster prevention and mitigation measures. The Group also procured insurance for the solar farms in a reasonable manner to minimise the loss caused by natural disasters. Compared with the same period in 2022, the total failure rate of modules, converters, inverters and boxtype transformer substation of the solar farms of the Group was basically flat in 2023, and the loss of power generation due to extreme weather conditions during the Year was relatively minor, totalling 219,100 kWh for the year.

During the Reporting Period, the fire incident at a plant of PV manufacturing enterprise in China served as a wake-up call, reminded us that "life is the first priority". We must attach great importance to safety production management and fundamentally eliminate potential accidents. In response to the national call for "safety production month", the Group launched safety month activities in June, by means of a kick-off meeting, posters and banners for promotion, incident contingency drills including fire drill and heat stroke under high temperature, competition on safety knowledge and inspection for the safety month. During the Reporting Period, the Group also arranged safety training, including the training on the Law of the People's Republic of China on Work Safety (《中華人民共和國安全生產法》), training on Fifteen Measures on Safety production by the State Council (《國務院安全生產十五條措施》), training on typical cases of electricity enterprises, training on network security and watching the themed documentary TV series, Life is the First Priority (《生命重於泰山》) and An Impenetrable Red Line (《不可逾越的紅綫》). The Group guided employees to raise their safety awareness and attach importance to safety management, so as to ensure the safe and stable operation of solar farms.

### Safety Education

- awareness through hands-on training
- personnel without certificates to participate in daily O&M
- existing rules and regulations



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• Strictly implement the three-levels safety education and strictly prohibit personnel without safety education and

• During the Reporting Period, the Group organised a total of 826 hours of safety training that covered the safety regulations and safety operation procedures of solar farms for its frontline 0&M staff. During the Reporting Period, in addition to strengthening the safety knowledge and skills training required for the post, such as the composition of automatic network of solar farms and its safety and protection measures, CPR and first aid knowledge, promotion and training of standardised self-assessment on the safety of solar farms, the Group also arranged themed training on typical cases of electricity enterprises, and for the promotion of Work Safety Law (《安全生產法》), to warn employees through case study and sharing, watching warning and educational films of "Life is the First Priority" (《生命重於泰山》), "An Impenetrable Red Line" (《不可逾越的紅綫》), etc., so that they can better understand the importance of safety production. Therefore, the safety awareness of employees can be further enhanced and more attention can be drawn to

### Safety Inspection and Supervision

- In order to regulate the implementation of safety production of each solar farm and prevent electrical accidents and other safety accidents, the Group has formulated the Management System for Safety Production Inspection and Hidden Danger Investigation and Treatment (《安全生產檢查及隱患排查治理管理制度》)
- The organisational structure of safety management of the Group is improved, and a part-time safety officer is appointed at each solar farm, in order to provide assistance to the person-in-charge of the solar farm on the monitoring and management of safety production, occupational health, fire safety, and environmental protection in their designated areas (such as staff within the operation area of the Group and external contractors serving the Group)
- The 0&M System is responsible for formulating different forms of safety inspection plans. The person-in-charge of the solar farm shall follow up on the rectification of the identified hidden dangers within the allowed timeframe, while the 0&M System shall re-examine the hidden dangers, subject to the internal supervision of the SDM Committee. We also accept external supervision of the safety regulators of the regions in which the solar farms are located by regularly reporting the investigation and management of hidden dangers
- Safety inspection includes daily hidden danger investigation, regular hidden danger investigation, seasonal hidden danger investigation, professional hidden danger investigation, and equipment hidden danger investigation, etc. All information on safety inspections, equipment fault warnings, maintenance records, and accident reports, is filled in and archived through the intelligent management system to ensure that safety inspection work records are standardised and digitalised, and provide complete and reliable data support when planning future safety inspections and supervision work



The intelligent management system can formulate specific items and plans for daily inspection based on its analysis of the equipment files. According to the past 0&M records of solar farms and equipment, the inspection items in certain areas have been streamlined and the frequency of daily inspections of certain equipment has been reduced, thereby improving the inspection efficiency. The personal inspection records of the O&M staff and all the inspection records of the solar farms on the day are automatically generated, reported and archived by the intelligent management system after completing the daily inspection plan

Each solar farm arranges monthly self-inspection based on the actual situations, including the environment of the solar farm, equipment conditions, operation management, fire prevention facilities, etc.

The O&M System organises an inspection team comprised of professional technicians at the headquarter to conduct comprehensive safety inspections for each solar farm on a quarterly basis, in which inspections are performed on the environment of the solar farm, equipment conditions, operation management, fire prevention facilities, etc.



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According to different seasons and extreme climate, the person-in-charge of the solar farm shall conduct safety inspections with emphasis on lightning protection/flood protection/heatstroke prevention/fire prevention/freeze prevention, such as safety inspections for rainy seasons and wind seasons, etc.

Pre-holiday (long holidays such as National Day holiday) inspections are conducted on the eve of holidays and organised by relevant departments, mainly including security measures for holidays and festivals, etc.

Professional safety inspections are conducted at least once a year on electrical equipment, fire prevention facilities, and natural disaster hazard spots around the solar farms

### Safety Assessment with Incentives and Penalties

- responsibilities
- that such records were more complete and more standardised
- The Group holds the Examination on Regulations of Electricity Work Safety (《電力安全工作規程考試》) for its frontline suggest rectification measures within a limited timeframe and follow up with the performance of the rectification
- Committee



• Strictly implement the Safety Production KPI Assessment and Management System (《安全生產目標考核管理制 度》) and evaluate the annual work targets every year to ensure the effective implementation of safety production

 The safety responsibility assessment adopts a scoring system. The indicators include the number of various types of accidents, the number of casualties, the implementation schedule and completion of safety work, and the participation level in safety training, etc., which are conducted on an annual basis. Annual appraisal scores serve as important references for internal promotion, job title assessment, rewards and penalties. During the Reporting Period, adjustments were made to the scores of certain major safety assessment items (such as unplanned power outages), and new assessment indicators on safety work records were added to regulate employees' records of safety work and ensure

operating staff every six months, and outstanding examination results could be used as a point-awarding item for determining the ranking of talents. For any unsafe behaviour in operation, facilities and equipment installation, and production management that violates the various existing safety and technical regulations, the Group also implements the Anti-violation Management System (《反違章管理制度》) to ensure that the staff responsible is identified, and

· Assessment process and determination of reward and penalty measures are subject to the supervision of the SDM

Apart from the management and control of the risks on solar farms, the Group also attached great attention to the information safety. To address cyber-attack and hacking, and ensure the safety of information and its transmission, the Group strictly compiles with the requirements from the electricity industry management department. Protection measures such as segregation between internal and external systems and double protection on both hardware and software are implemented. which strengthen the security of the servers. In the meantime, we strictly implement our security equipment protection strategy, in order to achieve safety for segregated areas, designated machines for accessing designated network, horizontal segregation and vertical encryption. We also test the warning system on safety incident on the equipment of the solar farm upon request, to ensure that issues that should be warned are all warned by the system. In addition, the Group conducts continuous system optimisation and regular inspections during daily 0&M, so as to eliminate hidden security risks and ensure information security, completeness and usability during data collection, measurement, analysis and feedback on the platform. During the Reporting Period, Xinyi Group issued the "Information Security Management System" and the "Information Security Reward and Punishment Management Measures", the terms of which are also applicable to the Group. During the Reporting Period, the Group did not come across major information security related incidents.

### **Emergency Response**

88 of the State Administration of Work Safety) (《生產安全事故應急預案管理辦法》(國家安監總局令第88號)) and the Measures for the Administration of Contingency Plans for Electric Power Enterprises (No.508 [2014], National Energy Administration) (《電力 企業應急預案管理辦法》(國能安全[2014]508號)), the Group has established the Emergency Management System (《應急管理制 度》) to standardise the emergency management of various emergencies and ensure that the Group can take effective measures to prevent and respond to incidents and emergencies, and minimise the impact thereof on employees and operations of the Group. The Group adopts the emergency management system based on the principles of position and grade division and dynamic management. The 0&M System is responsible for coordinating the implementation of various contingency plans established by the Group, including comprehensive contingency plans for overall operation, special emergency response lists for a single event/ important power facilities/major activities, and on-site response plans for specific emergencies.



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• Formulate contingency plans for identified risks according to the laws and regulations and actual need, which must clarify work allocation, persons-in-charge, particular procedures and security measures

• Carry out assessment on the plans according to the Assessment and Filing of Contingency Plans for Electric Power Enterprises (No.953 [2014], General Department of National Energy Administration) (《電力企業應急預案評審與 備案細則》(國能綜安全[2014]953號)), report to and file with the National Energy Administration and the local work safety regulatory authorities upon the publication of the emergency plan within the allowed time frame



 According to requirements of the Guidance on Emergency Response Drilling for Electric Power Emergencies (No.22 [2009], Electricity Safety Supervision Department of National Energy Administration) (《電力突發事件應急演練 導則》(電監安全[2009] 22 號)), the Group formulated plans for emergency response drills and arranged integrated emergency response drills or special emergency response drills, the frequency of which will be subject to the characteristics of the risks and the solar farms' actual operation situation

 Evaluation will be made on the effectiveness of the emergency response drills in terms of the relevance and the practicality of the plan. Regular review and

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The Group's contingency plans are revised every three years. During the Reporting Period, new contingency plans were prepared for the prevention of terrorist attacks, accidents in confined spaces, and accidents involving fires in mountains and forests, resulting in a system of contingency plans for solar farms comprising one comprehensive contingency plan, 18 specialised plans and 21 on-site handling plans. In addition, with the integration of storage power plants into the grid, the Group compiled emergency response plans for storage power plants, resulting in a system of emergency response plans for storage power plants. During the Reporting Period, the Group continued to organise emergency drills for incidents such as flood control and waterlogging prevention, fire, high temperature heat stroke and network security, etc., in order to enhance the emergency response capability and safety awareness of frontline 0&M staff in dealing with the higher occurrence rate of safety incidents in the day-to-day operation and maintenance of solar farms, including flood, fire and hot weather. In addition to launching emergency drills according to the annual emergency drill plan, the Company also improves the coverage of video surveillance, promotes super brain smoke detection equipment, and explores the feasibility of unmanned power station rail-mounted robots to ensure personal safety and avoid property loss.

### Intelligent O&M

The Group continues to promote the construction of information technology systems and improve the functions of the intelligent management platform, further integrates PV power generation technology with Internet of Things, big data, cloud computing and other technologies, and achieves centralised and intelligent 0&M through the drone system, intelligent management system and big data system. The drone system mainly uses the drone patrol, thermal imaging technology, intelligent image inspection algorithm and target image positioning technology to accurately identify and target components and equipment with hot-spot faults, so as to greatly improve the troubleshooting efficiency of hot-spot faults and reduce their impacts on power generation. The intelligent management system focuses on ensuring the safety of 0&M staff, and achieves the standardisation, streamline and intelligence of 0&M. The Group has implemented full-coverage video surveillance on major equipment/systems such as inverters, transformers, and optical power intelligent control system (AGC/AVC) of each solar farm through intelligent monitoring and communication equipment. We have achieved data sharing among the drone system, intelligent management system can be transmitted to the 0&M centralised control centre in Wuhu, Anhui Province in real time. The level of intelligent management and operation and maintenance efficiency was further enhanced. During the Reporting Period, the distributed solar farms held or maintained by the Group were fully connected to the intelligent 0&M platform.







- The electronic map of the whole solar farm is established by scanning and shooting by drone, and the PV modules and other equipment are marked and displayed on the map with the system number.
- During inspections, infrared photos and visible light photos are taken by the dual-light thermal imaging equipment carried by the drone, and uploaded to the big data system and intelligent management system in real time. The intelligent management platform scans and identifies infrared photos. If a hot spot or other fault point is found, it sends a warning message to the 0&M centralised control centre. including the GPS coordinates of the fault point, the system number of the PV module where the fault point occurred, and the location information on the map, infrared photos and visible light photos. After obtaining the warning information, the 0&M centralised control centre sends real-time fault notifications to the on-site staff of the power station to ensure timely handling of the fault, reducing the impact on power generation and avoiding other safety accidents.
- The data linkage between intelligent management system and the drone realises "component abnormality management, component abnormality confirmation, component abnormality statistics, and automatic transfer of component failures notice", which improves the efficiency of rectification of component problems.



- Establish solar farms files including the area of solar farms and location division information locked on the satellite map, as well as the information of construction, grid connection and subsidy, equipment files (basic information such as manufacturer, model, specification and warranty period, fault and handling information, as well as use and maintenance information), work files (inspection plan and shift management, solar farm duty log with inspection results and operating status, personal work log, etc.).
- The inspection items and plans are formulated through the equipment files. The intelligent management system automatically generates inspection tasks every day, and cooperates with the work log containing the inspection track to avoid repeated missed inspections and ensure the inspection effect.
- During the inspection, the location of the 0&M staff can be monitored in real time through the positioning function, and functions such as "timed safety reporting, one-key help, and the track of the inspection staff" are set to ensure the safety of the 0&M staff; the authenticity and validity of inspection data are ensured through GPS positioning, real-time photography, etc.
- After the inspection, a personal work log is automatically generated to evaluate the task completion and work efficiency. A duty log will be formed based on the inspection results of the solar farms throughout the day, providing actual data for the big data system for future equipment analysis, operational efficiency analysis, risk warning and management, etc.
- After receiving the fault notification from the 0&M centralised control centre, the intelligent management system will automatically generate a task list that needs to be confirmed by the on-site 0&M staff of solar farms, and a maintenance task list at the same time. The 0&M staff need to confirm and record the maintenance process, results, power generation and/or other loss data in the system.
- The intelligent management system has been linked with the enterprise resource planning system ("ERP system"), which allows us to understand the inventory data of materials of solar farm through the system, and establish a purchasing list when purchasing is required. Purchasing can be carried out after the system has completed online approval, improving material management and purchasing efficiency.



- Form high-precision data collection through drone system and intelligent management system, strengthen data transmission line management and firewall settings to ensure high-reliability data transmission, and realise real-time transmission of solar farm production data to big data systems. Through the big data system, the 0&M centralised control centre can realise real-time remote monitoring of solar farms, equipment and inspection and 0&M, efficiently manage and reasonably dispatch on-site 0&M personnel, identify and deal with faults in time to reduce risks, and give full play to the advantages of "unattended centralised management mode" - to generate more power with lower 0&M costs.
- Accumulate historical data through production and 0&M, use big data system for intelligent analysis, and continuously optimise 0&M plan and improve 0&M efficiency:
- 1. Loss analysis: identify the process with serious losses, and carry out maintenance and renovation;
- 2. Efficiency analysis: identify equipment with low power generation efficiency through horizontal comparison analysis, and carry out maintenance/replacement;
- 3. Fault early warning analysis: predict the equipment with the risk of failure through comparative analysis of the historical data of the equipment and the actual operation data, and take corresponding preventive/treatment measures:
- 4. Operation analysis: horizontally compare the performance and failure rate of similar equipment from different manufacturers to provide a reference for the selection of new solar farm equipment; horizontally compare different solar farm projects in the same region/category to provide a reference for optimising the 0&M plan.



The Group further promotes the digitalised management over the entire life cycle of solar farms and puts effort into maintenance, development and upgrade of the system, in order to achieve cost reduction and efficiency enhancement. Intelligent 0&M is an effective way to solve the difficulties on streamlining staff required and on enhancing the inspection efficiency brought by traditional 0&M, which helps to achieve lower cost and higher efficiency on 0&M, thereby the profitability and economic efficiency of solar farm projects could be enhanced continuously. Meanwhile, the historical data accumulated on the big data system facilitates the Group to grasp the enormous demand for the professional 0&M on solar farm projects brought by energy transition in the future. For its own operation, historical data accumulation can also improve the Group's understanding on the insolation level and annual fluctuation, frequency and changing patterns of extreme weather in the places where the solar farms are located, improve resilience to climate change, deploy in advance and fully prepare for extreme weather events to reduce the negative impact of extreme weather on power generation and safe operation of solar farm projects.

### **Asset Protection**

The Group supplies stable and reliable green power to the community by operation and management of solar farm assets. Compared to the conventional energy electricity generation, PV power generation possesses advantages like clean, recyclable, low cost and stable in performance. However, as the structure of PV system is relatively complicate, the regular maintenance of equipment is particularly important. In the meantime, since our solar farms are all located in areas with strong electricity demand in China, thus we understand our critical responsibilities on supplying and maintaining energy infrastructure and the promotion of Dual Carbon Goals. Therefore, the Group adopts strict asset management measures to protect the completeness and stability over the entire life cycle of our solar farms. During the Reporting Period, the total amount of electricity sold by the solar farms held by the Group was 3,821.44 GWh, representing an increase of approximately 20.0% as compared to last year.

The utility-scale solar farms held by the Group are exposed to outdoor environment during the entire operation cycle, thus they could be affected by natural disasters such as typhoons, floods, strong convection currents, sleets and freezing weather, fogs and earthquakes. According to the historical operational data during the past three years, typhoons, lightning strikes, and sleets and freezing are the main common natural disaster risk factors that have an actual impact on the 0&M of solar farms. In addition, there was an increase in the frequency and intensity of heavy rainfall in recent years due to climate change. The Group guides each solar farm to implement various emergency response measures based on the established procedures to effectively prevent related natural disasters, through the heavy rainfall and typhoon warning emergency response list and a snowfall warning emergency response list. The Group also enhanced protection measures to strengthen the solar farms' ability in coping with natural disasters based on the types of solar farms and the types of natural disasters with high likelihood, such as setting up windbreak to block strong winds, erecting lightning rods or laying grounding devices to prevent lightning strikes, increasing flood drainage facilities at floating solar farms, reinforcing flood control dikes and adopting anticorrosion equipment to ensure the service life of equipment used for solar farm projects in coastal cities, etc.

Apart from the above protection measures, the Group also procures insurance for its solar farms. The Group selects suppliers that provide reasonable low quotation based on their integrated quotation, the quantity and quality of concessionary items, claim status, and services. During the Reporting Period, the claim made by the Group on failure of equipment recorded a decrease as compared to 2022.

The Group utilises a green 0&M mode which saves water and is environmentally friendly to clean its PV modules during the 0&M of its solar farms, including waterless solar panel cleaning robot or natural rainwater cleaning. Meanwhile, we regularly inspect and maintain the components like PV batteries, components, inverters, brackets, etc., thus minimising the failure rate of PV electricity generation system to the greatest extent, and enhancing the electricity generation efficiency of the solar farms. During the Reporting Period, the solar farms of the Group maintained stable operation and the electricity generation reached a record high.







### **Employment Compliance and Human Rights**

The Group strictly complies with the Labour Law of the People's Republic of China (《中華人民共和國勞動法》), the Labour Contract Law of the People's Republic of China (《中華人民共和國勞動合同法》), the Employment Ordinance of Hong Kong (《僱傭條例》(香港)), the Provisions on the Prohibition of Using Child Labour (State Council Order No. 364) (《禁止使用童工 規定》 (國務院令第364號)), Special Rules on the Labour Protection of Female Employees (State Council Order No. 619) (《女 職工勞動保護特別規定》 (國務院令第619號)), the Law of the People's Republic of China on the Prevention and Control of Occupational Diseases (《中華人民共和國職業病防治法》) and other labour-related laws and regulations. The Group has established its talent management system in accordance with relevant laws to ensure standardised management for the

entire process from recruitment, onboarding, to the end of employment relationship through the formulation, implementation and improvement of internal management systems, and protect the legality of employment contracts and basic human rights of employees. Meanwhile, the Group supports and follows international standards such as the United Nations Global Compact and the International Labour Organisation, and has formed an effective implementation and supervision mechanism in terms of remuneration and benefits, training and assessment, employee incentives, occupational safety and health, etc., to respect and protect labour rights, health and safety, and legitimate interests of employees.



### Attractive Remuneration and Talents Retention

- Provide competitive remunerations and benefits to attract talents
- Provide competitive remuneration adjustments and incentives to staff by referencing the average level in the market in order to retaining talents
- Attach great importance to the safety and health of employees, and provide adequate labour protection and medical insurance
- Guide employees to balance work and life through a variety of employee activities and encouraging employees to participate in community welfare activities together

### Training and Growth with Xinyi Energy

- Standardise training and assessment mechanism to ensure that employees receive comprehensive job skills training
- Pay attention to the improvement of employees' personal abilities, and provide employees with diversified comprehensive skills training, including occupational skills training, individual growth training, safety training and anti-corruption training

The Group confirms the employment relationship by signing Labour Contract with employees, which sets out the terms that protect the legal interest of employees, such as remuneration, benefits, training and promotion mechanism, occupational health and labour safety, while imposing reasonable restrictions through terms of non-competition, confidentiality and termination to protect both sides' rights and interests.

Respecting human rights is the principle that Xinyi Energy always adheres to in business operation and development. The Group acts as a role model and promises there will never be any employment that violates human rights related to recruitment, salary, welfare, training, promotion, dismission and retirement. Through strengthening internal control and accepting supervision from local human resource management and social security authorities, the Group ensured that there was no employment that violated human rights during the Reporting Period, and all employments complied with the principles of the United Nations Global Compact in terms of labour standards:

### Principle 6: Enterprises should eliminate any discrimination in respect of employment and occupation

### Non-discrimination principle:

It is forbidden to treat employees differently or less favourably because of characteristics such as race, skin colour, gender, religion, political opinion, national extraction, social origin, age, etc. that are not related to employees' merit or the inherent job requirements (knowledge, skills, professional qualifications and experience, etc.)

During the Reporting Period, the Group strictly followed the established internal systems and norms, and adopted the same standard to handle the employments, assessments, remunerations, benefits, training, promotions and other employment matters of all employees, ensuring that all employees are treated fairly, equitably and without discrimination

### Principle 4: Enterprises should eliminate all forms of forced labour

### No forced labour:

On the basis of equality, voluntariness and consensus, labour contracts that comply with local laws and regulations are signed in writing to establish employment relationships between the Group and employees. Labour contracts clearly state the terms of remuneration, benefits and other terms that protect lawful rights and interests of employees and termination terms to ensure that employees are aware of and have the right to freely terminate labour according to the established rules

During the Reporting Period, the Group ensured that all employment relationships were established in strict compliance with local laws and regulations, and there was no forced labour in any form during its historical operation



### Principle 5: Enterprises should abolish child labour

# No child labour:

### Never employ anyone under the age of 15 or the local legal minimum working age (whichever is higher)

By the end of 2023, the youngest employee of the Group has also reached the age of 18. During the recruitment and entry process, the Group checks the necessary identity documents, including resident identification cards of China, to ensure that employees meet the working age requirements

# Freedom of association: and "collective contract"

During the Reporting Period, the Group respected and guaranteed the freedom of employees to participate in labour unions. The Group protects the right of employees to participate in labour unions through the established new energy trade union. Meanwhile, the new energy trade union serves as an effective communication channel between employees and the headquarter of the Group. Employees can convey their opinions, suggestions and appeals to the headquarter through the new energy trade union at any time

### Principle 3: Enterprises should uphold the freedom of association and recognise the right to collective bargaining

### Respect and protect the freedom to form an association that employees are entitled to, and strictly abide by the local law related to "collective negotiation"

The power industry is a non-labour-intensive industry. Through a centralised and intelligent 0&M model, the Group has streamlined its organisational structure and achieved flat management. In terms of the total installed capacity at the end of the Year, the Group has less than 11 employees per 100 MW of solar farms, including middle/senior management and middle/back-office employees. During the Reporting Period, the Group had a total of 385 employees, who are mainly technical talents such as electrical engineers, electrical technicians, quality engineers, and quality management specialists. There were 311 front-line 0&M staff, which accounts for approximately 81% of the Group's total employees. As the safe operation of solar farms is related to the stability and safety of power supply to local communities, if a safety incident occurs, it will endanger the ecological security of local communities, the personal safety of employees, as well as the property safety and goodwill of the Group. The professional knowledge and skills of 0&M staff are the basis for ensuring the safe and stable operation of solar farms. Therefore, having corresponding qualifications and professional knowledge and skills in the power industry is the core considerations for the Group to recruit employees. Child labour and forced labour do not meet the core requirements of the Group. All employments of the Group in the past operating period were in line with the four principles advocated by the United Nations Global Compact in the field of labour standards, and child labour and other forced labour have never occurred.

In addition, the Group attaches great importance to safeguarding the rights of female staff in the workplace. Apart from ensuring equal and non-discriminated treatment on female staff within employment scope, the Group has full understanding and respect on the particularity of female staff, providing female staff in special periods such as marriage, pregnancy, childbirth and other special circumstances with special protection and ensuring related welfare benefits, including but not limited to marriage leave, maternity leave, and breastfeeding leave, Reasonable adjustment on working arrangement and reduction on work intensity are made, and measures are adopted to assist female staff to return to working position postpartum, with strict compliance with the Special Rules on the Labour Protection of Female Employees (State Council Order No. 619) (《女職工勞動保護特別規定》 (國務院令第619號)) and the Law of the People's Republic of China on the Protection of Rights and Interests of Women (《中華人民共和國婦女權益保障法》). According to family planning regulations applicable to regions where our operations are located, the Group also provides paternity leaves to male staff according to such regulations to ensure their rights to take care of and attend to their spouses.

### **Diversity, Inclusion and Equal Opportunity**

The Group advocates Board diversify and a diversified and inclusive staff team, continuously enhancing the diversity of gender, age, background and professional knowledge of its staff team. We prohibit any form of discrimination, including but not limited to gender, age, physical and mental condition, family background, marital status, race, religion and political opinion.

Most utility-scale solar farms are built in remote region far away from city centre, and it requires 0&M staff to stay and work and live in local area for a long period of time. Local governments also actively encourage enterprises to make good use of local talents and create employment opportunities for local communities. Coupled with the influence of the industry characteristics of the Group's business and flat management structure, around 81% of our employees are front-line 0&M staff. The Group's talent team is dominated by local male employees, thus the percentage of female staff in our total number of employees is relatively low, which only accounts for 8%. Nevertheless, the Group still believes that building a diverse team will have a positive impact on the long-term operation and development of the Group. Although the proportion of female employees in front-line 0&M staff is relatively low, the Group still sees and highly recognises the outstanding performance of female employees and their contributions to the business development of the Group in mid- and back-office departments, such as the Finance Department, centralised control centre and management positions. Therefore, the Group abides to the principle of implementing "equal treatment to all" in employment and talent management, and takes all measures to ensure

that no employees will be discriminated or receive unequal treatment due to gender and other factors unrelated to self qualities, professional skills and professional performance, and ensure that every employee is treated fairly and with dignity every day during their service periods. As of 31 December 2023, female directors account for 14.3% of the Board of the Group, Among mid- and back-office departments such as supervision team and Finance Department, female employees account for approximately 87% and approximately 80%, respectively, which shows the Group's adherence to gender equality in the workplace, its determination to improve the diversity and inclusiveness of its talent team, and its commitment to safeguarding the equal development opportunity for all devoted employees.

The Group has established and continuously improved the recruitment procedure and the internal promotion mechanism, and adhered to the principle of "Equality, fairness and transparency" in the process of recruitment, assessment and promotion, to ensure that every candidate or employee receives fair development opportunities. When determining remuneration and benefits, we adhere to the principle of equality and carry out in accordance with fixed internal provision requirements based on standards such as functions, ranks and working years only. These standards have been expressly provided without discrimination. There will never be any employee suffering unequal treatment due to factors of race, skin colour, gender, religion, political opinion, ethnic origin, social origin and age, etc.

### **Talent Acquisition and Retention**

The Group expands talent introduction channels by strengthening school-enterprise cooperation and reward mechanism for internal recommendation, and actively reserves talents to meet the Group's future business development needs. In order to attract and retain outstanding talents, the Group has established and been continuously improving a competitive remuneration and welfare system and incentive mechanism. The Group's remuneration system is established based on the concept of overall rewards, including basic salary, performance pay, guaranteed benefits and other cash allowances. In determining remuneration packages, in addition to ensuring the compliance with the legal requirements of the countries and regions where the businesses are located, the Group also keeps abreast with the average remuneration level in the industry to ensure market competitiveness. At the same time, the Group provides comprehensive benefits for employees, including but not limited to social security benefits, such as six types of insurance and one housing fund, providing accommodation, statutory holiday (two-day offs and paid annual leave), medical insurance (regular annual physical examinations, occupational disease health examinations, critical illness insurance), equity incentives, and various types of cash allowances, such as hightemperature subsidies, transportation allowances, food allowance, etc. Meanwhile, employees with excellent performance or long-term service are rewarded according to the established incentive system. The Group places emphasis on feedbacks and suggestions from staff on current remuneration and benefit system and incentive mechanism, encouraging staff to reflect their own needs to the Group through new energy trade union and other sub-department, so that the Group can continuously improve remuneration and benefit system and incentive mechanism.

X4E Facilitate the Career Development of Employees

### Eliminate discrimination and unfair treatment

If there is any incident of discrimination, unjust or unfair treatment that violates the Group's promotion principles, such incidents will be taken seriously and followed up and investigated promptly, and the responsible person should be held accountable for such events in accordance with the established reward and penalty system

### Unified standards, comprehensive evaluation

Comprehensive evaluations are performed based on various factors including work performance, professional skills, industrial experience and personal conduct, in order to ensure that all employees are subject to the same evaluation and promotion standard

### Establish evaluation and supervision departments

Conduct regular evaluations on the regular work performance of employees, while supervision departments would supervise the process and its outcome to ensure a fair and just evaluation

During the Reporting Period, one staff member in the New Energy Office was promoted and there was no additional directly recruited external middle management staff during the Year.

In addition to the individual need of staff, the Group also cares for staff's appeal of balancing work and family. For example, in terms of housing arrangement, the Group arranges housing that better suits family needs for staff with family members, under the premise of not affecting the reasonable interests of other staff. The Group also set up Xinyi Education Fund, providing education funds for eligible staff's children to support them to finish their education. During the Reporting Period, the Group provided education fund of RMB28,000, benefiting seven children of staff.

The Group highly emphasizes the training and development of internal talents. It is believed that employees who are deeply influenced by the Group's corporate culture and who have grown up under the scientific talent training system can gain a deeper understanding of and adhere to the sustainability approach of the Group, and have a better understanding of the Group's business and operating models, systems and standards. Therefore, it is more beneficial to establish and lead an efficient and cohesive team to achieve the Group's business development and long-term strategic goals. The Group is committed to continuously improving the internal training and promotion mechanism to help employees accumulate experience and realise their career goals and dreams on the platform of Xinyi Energy, and thus grow with the Group.





### **Occupational Health and Safety**



In accordance with the requirements of the Law of the People's Republic of China on the Prevention and Control of Occupational Diseases (《中華人民共和國職業病防治法》) and the Provisions on the Supervision and Administration of Occupational Health at Work Sites (Order No. 47 of the State Administration of Work Safety) (《工作場所職業衛生監督管理規 定》 (國家安全監管總局令第47號)), the Group has formulated the Occupational Health Management System (《職業健康管 理制度》) and fully implemented during the Reporting Period. With an aim to ensure employees' sufficient understanding of occupational health management and voluntary compliance of existing codes of the Group, the Group implements hierarchical management, specific responsibilities for every post and a supervision mechanism, strengthening occupational health education and training. We try to prevent occupational diseases from occurring, and to achieve the goal of zero occupational disease incidence. During the Reporting Period, the Group had no case of occupational diseases.

As nearly 80% of the employees of the Group are on-site staff at the solar farms, and as they are exposed to dangerous electrical equipment such as main step-down transformers, converters and inverters in the course of 0&M, the protection of occupational health and labour safety of front-line O&M staff are essential for the Group to improve occupational health management and achieve corporate sustainable development goals (XYE SG4: Safeguard the health of employees and the surrounding community, and achieve the goal of zero incidence of occupational diseases among employees and zero harm to personal health). Occupational hazardous factors faced by front-line O&M staff in solar farms include high temperature in summer, noise and power frequency electric fields.



COMPREHENSIVE

CARE

HEALTH

**CHECK-UPS** 

Regarding noise and power frequency electric fields, the Group has engaged qualified third parties for inspection. Inspection result showed that both factors are way below standard. Meanwhile, because the Group uses intelligent management system in the daily 0&M of solar farms, which effectively improves the 0&M efficiency and reduces the inspection time, the front-line 0&M staff will not stay in the noisy environment for a long time. Hence, noise and power frequency electric fields will not be occupational hazards to the front-line staff of the Group. However, the Group will continuously monitor changes of relevant hazardous factors in the work place to ensure that there is sufficient protection for its employees. In terms of high temperature in summer, the Group minimises the outdoor work time of employees or tries to avoid outdoor work under high temperature by means of drone inspection. In addition, employees who have to work outdoors are provided with professional sunburn protection equipment, heatstroke medication and cool drinks with heat relief functions like drinks with salt and sweet mung bean soup, to protect the health of employees. In addition, as most of the front-line O&M staff need to live and work in the solar farm for a long time, the local working and living environment of the solar farm has a substantial impact on the health and emotions of the on-site staff. The Group has been continuously improving the living area by purchasing various cultural and sports facilities to provide employees with a more comfortable living environment and ensure that employees can have sufficient rest in their spare time.

The Groups highly values occupational health education and training. During the Reporting Period, the Group organised training on first aid knowledge (CPR), and arranged training on occupational health management qualification, so as to continuously improve the awareness of occupational health and measures on addressing such issues of our employees.

### Staff Training and Development

### Scientific talent training system

The Group has established systematic training mechanism, and formulated an annual training plan based on the long-term development needs of the business, annual business objectives and key tasks, as well as job-specific skills enhancement for different position. Relevant departments and dedicated personnel will follow up the feedback and suggestions of employees on the training, and conduct training effectiveness evaluation, so as to provide reference for the formulation of future training plans. While ensuring the effectiveness of the training, the Group continues to simplify and optimise the training content and course offerings to avoid repetitive training to make full use of training resources and effectively use the employees' spare time. During the Reporting Period, according to the training content, the Group provided employees with diverse comprehensive skills training, including training on occupational skills, training on personal development, training on safety and anti-corruption training, and flexibly chosen theoretical training and/or practical training, online/offline training, internal training/entrusted external professional training ("External Training") according to different training contents, in order to achieve best training effect.



### Improve training models

The Group invites experienced solar farm directors and/other technicians to conduct centralised training on job skills, contingency response capability, etc. for all solar farm O&M staff. This can avoid repeated training in the relevant training model organised by the solar farm alone and the problem of uneven training quality

### • Strengthen external training, improve professional skills of employees

After adopting a centralised model for internal training, considering the requirements of employees to enhance professional skills and their long-term demands for career planning, the Group allocated more training hours to external professional institutes to organise professional certification courses such as high-voltage/low-voltage electrical work certificate, dispatcher qualification, occupational health management qualifications and others. During the Reporting Period, the duration of external training was approximately 5,502 hours, accounting for approximately 77.4% of the total training hours

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During the Reporting Period, the Group arranged a total of 7,112 hours of training with 1,624 participants, and with average training hours of 18.5 hours per employee. The training hours for internal and external training were 1,610 hours and 5,502 hours respectively. The percentage of external training has been increased from 63.2% in 2022 to 77.4%. As standardised operation and professional knowledge of front-line staff are essential to ensure the safety production of electricity and stability of supply, and the promotion of an integrity culture and the cultivation of integrity among employees are important to the long-term development of the Group, the Group ensures that every employee can receive equal and sufficient training opportunities based on their job and self-improvement needs.

### A variety of employee activities

The Group promotes and encourages employees to pursue work-life balance. Since the solar farms are located in generally remote areas in different provinces and cities across the country, as such, the Group sets up a new energy trade union to always pay attention and provide feedback on the need of on-site staff, arrange a variety of employee activities, provide on-site staff with a platform to relieve work pressure and relax, so as to enhance physical and mental health of employees and strengthen team cohesiveness. During the Year, the Group's employee activities were mainly online activities and offline activities arranged by respective solar farms. However, employees of different solar farms can still communicate in the WeChat group established by the new energy trade union. During the Reporting Period, the new energy trade union of the Group hosted the 2<sup>nd</sup> "Energy Cup" Chinese Chess Competition. The 4<sup>th</sup> "Energy Cup" King Pro League E-sports Competition was held online and the number of participants and support from staff were enormous. The champion, first runner-up, second runner-up and all participants of the competition were awarded with exquisite prizes for actively participating in the activities of the Company and demonstrating the spirit of aggressiveness.



In order to promote the culture of traditional Chinese festivals and activate the festive atmosphere, as well as relieving the homesickness of on-site staff who are unable to spend the festive time with their families, during the Year, the Group requested each solar farm to arrange employee activities with festive characteristics on holidays such as Mid-Autumn Festival, Lantern Festival, Dragon Boat Festival and Winter Solstice.



To celebrate the Mid-Autumn Festival, staff of different solar farms actively participated in celebratory activities such as making mooncakes, and shooting videos to spread blessing messages for Mid-Autumn Festival. In the evening of the Mid-Autumn Festival, new energy trade union held a live broadcast named "Full of blessings at Xinyi under the full moon of Mid-Autumn Festival". A wide variety of activities were held including quizzes with prizes, live broadcasting games and video calls. In addition, gift packages were prepared for staff.



In addition, as always, the Group organised birthday parties at solar farms every month, mid-year team-building and autumn camping activities for staff, with an aim to create a warm and blessing working and living atmosphere and make our staff feel like home.



Birthday party-1

Birthday party-2









# BUILDING A CARING COMMUNITY

"Treating the world with a sincere heart" has been the core value of Xinyi Energy. While we pursue for the development of our business, we bear "giving back to the society" in our mind, and we actively undertake corporate social responsibilities, participating in community welfare wholeheartedly, providing timely support and help to the underprivileged. Through our innovative "PV+" mode, our agricultural-PV complementary solar farms and fishery-PV complementary solar farms promote the diversified layout of PV power generation, and also create more employment opportunities for the local community, facilitating the economic development. Being a responsible renewable energy power generation enterprise, we will continuously pursue for the establishment of community with sustainability, creating shared value for the community members and stakeholders.





### **BUILDING A CARING COMMUNITY**

### **Community Responsibility and Commitment**

The Group is fully aware that its own sustainable development is inseparable from the progress of society as a whole. The Group has always taken on social responsibility and valued the interests of society as a whole, and in the process of contributing to the community, the Company and the community will work together to achieve sustainable development. During the Reporting Period, the Group called upon its employees to participate in the "10.1 Charity Run (國慶樂善減塑啟Duck Run)" event, during which the funds raised were used to support medical, education and elderly services in the community. In addition, the Company also actively participated in social welfare activities such as the Dress Causal Day of the Community Chest and Tung Wah Group of Hospitals' annual Flag Day, which not only demonstrated the Company's cohesion, but also contributed to the achievement of the five Sustainable Development Goals (SDGs) of the society.



The Group also participated in the "Dragon Boat Festival Lucky Bag Distribution" event organised by The Lok Sin Tong Benevolent Society, Kowloon, a long-established charitable organisation, with an aim of sending dragon boat festival blessings to elderly living alone or grassroots families. In September of the same year, the two organisations gave away Mid-Autumn mooncakes to nearly 1,200 grassroots families during the Mid-Autumn Festival as a token of their love and care. In addition, during the National Day and New Year festivals every year, the Group has been actively fulfilling its social responsibility to help the underprivileged groups in the community, demonstrating its corporate commitment. Solar farms in Mainland China also actively participated in local pubic welfare activities. For instance, the Qingyang Solar Farm paid visits and regards to the elderly persons of no family, poor households and left-behind children in Dingqiao and Luojiatan villages. During the reporting period, the Group's social donations amounted to HK\$5.841 million.



### Facilitating Local Economic Development

It is the preference of the Group to acquire solar farms with "PV+" mode layout, which could promote the integration and development of PV power generation and agriculture, forestry, animal husbandry and fishery industries through fully-utilising the space resources at the site like coal mining subsidence area, fish pond for aquaculture, and greenhouse for agriculture, which could protect the local ecological environment and biological resources, as well as driving the local employment, thus raising the tax income of the local governments.

### Case study: Agricultural-PV complementary solar farm – Xinyi Jiangmen Heshan Solar Farm

Xinyi Heshan Shuanghe County Agricultural-PV Solar Farm Project (Jiangmen Heshan Solar Farm) is a comprehensive project integrating PV power generation, agricultural cultivation and village tourism with a total investment of approximately RMB400 million, a total installed capacity of 100 MW and an area of about 3,600 mu.



The project adopts the mode of "on-board power generation and off-board planting", fully considering the height and width of the brackets to meet the operational requirements of a variety of small-scale agricultural machinery, and the brackets is internally equipped with an advanced intelligent drip irrigation system to meet the irrigation needs of crops. On the other hand, it uses the mulch to strengthen the soil and water conservation capacity, greatly protecting and improving the production of crops, and combining the agricultural planting production and PV power generation in an organic way, so as to realise the double benefits in terms of both economic benefits





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### **BUILDING A CARING COMMUNITY**



### Increasing the tax income to facilitate local finance

Eight dedicated O&M staff are stationed at the solar farm, The solar farm has been operated stably since it was completed, providing approximately RMB10 million of tax every year

### Driving local employment and income

The construction and operation of the solar farm provide employment opportunities for villagers in surrounding areas, such as greenery maintenance, devegetation, plantation, etc. On the other hand, the concentration of population helps to drive the consumption in the surrounding area and the employment of villagers



### Energy conservation and emission reduction

The 100 MW solar farm generates approximately 120 million kWh of electricity every year, which is equivalent to saving nearly 36,000 tonnes of standard coal, and reducing the emission of nearly 100,000 tonnes of carbon dioxide, facilitating the achievement of Dual Carbon Goals

### Enhancing the resilience of the community to climate change

Transmitting more stable, greener and safer electricity to the local grid, optimising the local electricity structure, and increasing the proportion of renewable energy in electricity generation will bring positive impacts to the community ecology, atmospheric environment and the health of local people, thus enhancing the resilience of the community to climate change

### Helping to revitalise rural areas

Integrating the local tea culture and agricultural tourism characteristics, the solar farm becomes a demonstration site on agricultural and PV village tourism, realising the green and clean energy, while continuously improving the local image and the income level of agriculture and plantation, which in turn helps to revitalise the rural areas

### Enhancing the utilisation efficiency of land

This project utilises the long-derelict tidal flats through comprehensive development. With a long-term land rental contract, it brings stable rental income to the local community

# **2023 SUSTAINABILITY DATA SUMMARY**

This chapter mainly displays the Group's performance on ESG KPIs in 2023 through data tables. Classification standards of KPIs, being determined in the same way as 2022, are based on the Reporting Guidance on Environmental KPIs and Reporting Guidance on Social KPIs of the Hong Kong Stock Exchange, and selected based on the scopes of material issues, taking reference to GRI's standard and TCFD's recommendations for certain issues. In addition, to continuously strengthen the management and disclosure of ESG KPIs, the Group has made corresponding disclosures in respect of those indicators related to the actual operation of the Group in this report with reference to the sustainability disclosure topics, accounting indicators and activity indicators set out in the Sustainability Accounting Standards for the Solar Technology & Project Developers Industry issued by SASB.

Unless otherwise stated, the data provided in this chapter is the data of whole year or as at 31 December of the particular years. Explanations will be given and the reasons and effects will be provided where the historical data has been restated.

Corporate governance	2023	2022	Disclosure reference standard (GRI/ HKEx/ TCFD)	
Settled corruption related litigation related to the Group or its employees	0	0	GRI 205-3/ HKEx B7.1	
Anti-corruption training (hours)	110         64           109         64			
Anti-corruption training (persons)			GRI 203-2/ HKEX D7.3	

Operation performance	2023	2022	Disclosure reference standard (GRI/ HKEx/ TCFD/ SASB)
Total installed capacity (MW)	3,695	3,014	SASB RR-ST-000.B
Net value of solar farm projects at the end of the Reporting Period (HK\$ million)	14,836	13,400	SASB RR-ST-000.C
Electricity sales (GWh)	3,821.44	3,184.50	HKEx A3.1/ TCFD
Equivalent to saving standard coal <sup>Note 1</sup> (tonnes)	1,149,108	960,128	
Equivalent to reducing CO <sub>2</sub> emissions <sup>Note 1</sup> (tonnes)	3,148,871	2,636,770	
Equivalent to reducing NO <sub>x</sub> emissions <sup>Note 1</sup> (tonnes)	508	484	
Equivalent to reducing SO <sub>2</sub> emissions <sup>Note 1</sup> (tonnes)	317	322	
Equivalent to planting trees (plants)	136,907,415	114,641,981	
Equivalent to household annual electricity consumption (households)	1,592,269	1,326,876	
Electricity sales attributable to renewable energy during the Reporting Period (%)	100	100	HKEx A3.1/ TCFD

### Note:

(1) Emission reduction performance of electricity sales is based on the coefficient set out in "China Power Industry Annual Development Report" (《中國電力行業年度發展報告》) issued in the corresponding year







### 2023 SUSTAINABILITY DATA SUMMARY

Financial performance	2023	2022	Disclosure reference standard (GRI/ HKEx/ TCFD)
Earnings performance			
Revenue (HK\$ million)	2,517	2,315	
Consolidated net profit (HK\$ million)	995	974	
Earnings per share (HK cents)	12.56	13.33	
Dividends per share (HK cents)	6.00	15.10	
Asset structure			
Net assets value (HK\$ million)	13,307	11,762	
Cash and cash equivalents (HK\$ million)	645	1,791	
Bank loans (HK\$ million)	6,270	4,954	
Net debt gearing ratio (%)	42.3	26.9	
Current ratio (x)	1.2	1.0	
Investment in renewable energy assets during the Reporting Period (HK\$ million)	2,610	1,530	TCFD
Investment attributable to renewable energy assets during the Reporting Period (%)	100	100	TCFD
Revenue attributable to renewable energy during the Reporting Period (%)	100	100	TCFD

Environmental performance	2023	2022	Disclosure reference standard (GRI/ HKEx/ TCFD/ SASB)
Use of resources			
Total energy consumption (kWh)	33,133,021	28,061,116	GRI 302-1/ HKEx A2.1
Total direct energy consumption <sup>Note 1</sup> (kWh) Proportion (%)	1,187,395 <i>(3.6%)</i>	916,780 <i>(3.3%)</i>	GRI 302-1/ HKEx A2.1
Total indirect energy (electricity purchased externally) consumption (kWh) <i>Proportion (%)</i>	31,945,626 <i>(96.4%)</i>	27,144,336 <i>(96.7%)</i>	GRI 302-1/ HKEx A2.1 SASB RR-ST-130a.1
Intensity of energy consumption Note 2 (kWh)	8,670	8,812	GRI 302-3/ HKEx A2.1
Total water consumption (cubic metres)	16,118	16,858	GRI 303-3/ HKEx A2.2
Intensity of water consumption Note 2 (cubic metres)	4.22	5.29	HKEx A2.2
Emissions of pollutants			
Emissions of greenhouse gas			
Total emissions of greenhouse gas <sup>Note 3</sup> (tonnes of CO <sub>2</sub> equivalent)	18,563.60	22,738.69	HKEx A1.2/ TCFD
Direct emissions (Scope 1) (tonnes of CO <sub>2</sub> equivalent)	345.01	263.18	GRI 305-1/ HKEx A1.2/ TCFD
Indirect emissions Note 4 (Scope 2) (tonnes of CO <sub>2</sub> equivalent)	18,218.59	22,475.51	GRI 305-2/ HKEx A1.2/ TCFD
Emission intensity of greenhouse gas $^{\rm Note\ 2}$ (tonnes of $CO_2$ equivalent)	4.86	7.23	GRI 305-4/ HKEx A1.2/ TCFD
Intensity of direct emissions (tonnes of CO <sub>2</sub> equivalent)	0.09	0.08	
Intensity of indirect emissions (tonnes of CO <sub>2</sub> equivalent)	4.77	7.15	





### 2023 SUSTAINABILITY DATA SUMMARY

Environmental performance	2023	2022	Disclosure reference standard (GRI/ HKEx/ TCFD/ SASB)
Emissions of air pollutants			
Total emissions of $\mathrm{NO}_{\mathrm{x}}$ (kilograms)	1,186.65	911.35	GRI305-7/ HKEx A1.1
Total emissions of $SO_2$ (kilograms)	1.95	1.50	GRI305-7/ HKEx A1.1
Total emissions of particles (smoke and dust) (kilograms)	110.06	84.55	GRI305-7/ HKEx A1.1
Discharge of wastes			
Total emissions of hazardous wastes (tonnes)	42.1	16.71	GRI 306-3-a/ HKEx A1.3
Intensity of hazardous wastes emissions <sup>Note 2</sup> (kilograms)	11.02	5.25	HKEx A1.3
Total emissions of non-hazardous wastes (tonnes)	35.8	29.82	GRI 306-3-a/ HKEx A1.4
Intensity of non-hazardous wastes emissions <sup>Note 2</sup> (kilograms)	9.36	9.36	HKEx A1.4

### Notes:

- (1) Total direct energy consumption is calculated based on the National Standardised General Rules for Calculation of the Comprehensive Energy Consumption of the People's Republic of China (《中華人民共和國國家標準綜合能耗計算通則》)
- (2) Intensity of energy consumption, water consumption, greenhouse gas emissions and waste discharges are calculated by emission or consumption per million kWh of electricity sales
- (3) Total emissions of greenhouse gas = Direct emissions + Indirect emissions CO<sub>2</sub> reduction resulted from newly planted trees during the Reporting Period
- (4) Indirect emissions of greenhouse gas is calculated based on the emission coefficient set out in "China Power Industry Annual Development Report" (《中國電力行業年度發展報告》) issued in corresponding year

Employment performance         2023         2022         Disclosure reference st (GRI/ HKEx/ TCFD)         St (GRI/ HKEx/ TCFD)         St (GRI/ HKEx/ TCFD)         St (GRI/ HKEx/ TCFD)         St (GRI 2-7/ GRI 405-1/ HKEx           By gender (%)         GRI 2-7/ GRI 405-1/ HKEx         GRI 2-7/ GRI 405-1/ HKEx         GRI 2-7/ GRI 405-1/ HKEx         GRI 2-7/ HKEx B1.1         GRI 2-7/ HKEx B1.1	
Number of employees Note 1       385       370       HKEx B1.1         By gender (%)       GRI 2-7/ GRI 405-1/ HK         Female       31(8.1%)       26(7.0%)         Male       354(91.9%)       344(93.0%)         By region (%)       GRI 2-7/ HKEx B1.1         Mainland China       380(98.7%)       365(98.6%)         Anhui Province       147(38.2%)       144(38.9%)         Hubei Province       67(17.4%)       68(18.4%)         Other regions       166(43.1%)       153(41.3%)         Hong Kong, China       5(1.3%)       5(1.4%)	andard
By gender (%)       GRI 2-7/ GRI 405-1/ HKI         Female       31(8.1%)       26(7.0%)         Male       354(91.9%)       344(93.0%)         By region (%)       GRI 2-7/ HKEx B1.1         Mainland China       380(98.7%)       365(98.6%)         Anhui Province       147(38.2%)       144(38.9%)         Hubei Province       67(17.4%)       68(18.4%)         Other regions       166(43.1%)       153(41.3%)         Hong Kong, China       5(1.3%)       5(1.4%)	
Female       31(8.1%)       26(7.0%)         Male       354(91.9%)       344(93.0%)         By region (%)       GRI 2-7/ HKEx B1.1         Mainland China       380(98.7%)       365(98.6%)         Anhui Province       147(38.2%)       144(38.9%)         Hubei Province       67(17.4%)       68(18.4%)         Other regions       166(43.1%)       153(41.3%)         By age (%)       GRI 405-1/ HKEx B1.1	Ex B1.1
Male       354(91.9%)       344(93.0%)         By region (%)       GRI 2-7/ HKEx B1.1         Mainland China       380(98.7%)       365(98.6%)         Anhui Province       147(38.2%)       144(38.9%)         Hubei Province       67(17.4%)       68(18.4%)         Other regions       166(43.1%)       153(41.3%)         Hong Kong, China       5(1.3%)       5(1.4%)	
By region (%)         GRI 2-7/ HKEx B1.1           Mainland China         380(98.7%)         365(98.6%)           Anhui Province         147(38.2%)         144(38.9%)           Hubei Province         67(17.4%)         68(18.4%)           Other regions         166(43.1%)         153(41.3%)           Hong Kong, China         5(1.3%)         5(1.4%)	
Mainland China       380(98.7%)       365(98.6%)         Anhui Province       147(38.2%)       144(38.9%)         Hubei Province       67(17.4%)       68(18.4%)         Other regions       166(43.1%)       153(41.3%)         Hong Kong, China       5(1.3%)       5(1.4%)         By age (%)       GRI 405-1/ HKEx B1.1	
Anhui Province       147(38.2%)       144(38.9%)         Hubei Province       67(17.4%)       68(18.4%)         Other regions       166(43.1%)       153(41.3%)         Hong Kong, China       5(1.3%)       5(1.4%)         By age (%)       GRI 405-1/ HKEx B1.1	
Hubei Province         67(17.4%)         68(18.4%)           Other regions         166(43.1%)         153(41.3%)           Hong Kong, China         5(1.3%)         5(1.4%)           By age (%)         GRI 405-1/ HKEx B1.1	
Other regions         166(43.1%)         153(41.3%)           Hong Kong, China         5(1.3%)         5(1.4%)           By age (%)         GRI 405-1/ HKEx B1.1	
Hong Kong, China         5(1.3%)         5(1.4%)           By age (%)         GRI 405-1/ HKEx B1.1	
By age (%) GRI 405-1/ HKEx B1.1	
≤30 <b>219(56.9%)</b> 220(59.5%)	
<b>124(32.2%)</b> 109(29.5%)	
<b>30(7.8%)</b> 26(7.0%)	
≥51 <b>12(3.1%)</b> 15(4.0%)	

Note:

(1) Only full-time employees are counted



### 2023 SUSTAINABILITY DATA SUMMARY

Employment performance	2023	2022	Disclosure reference standard (GRI/ HKEx/ TCFD)
Turnover of employees (turnover rate, %)	106(27.2%)	127(34.3%)	GRI 401-1/ HKEx B1.2
By gender (%)			GRI 401-1/ HKEx B1.2
Female	16(51.6%)	2(7.7%)	
Male	90(25.4%)	125(36.3%)	
By region (%)			GRI 401-1/ HKEx B1.2
Mainland China	105(27.6%)	127(34.3%)	
Anhui Province	63(42.9%)	43(29.9%)	
Hubei Province	16(23.9%)	16(23.5%)	
Other regions	26(18.8%)	68(44.4%)	
Hong Kong, China	1(20.0%)	0(N/A)	
By age (%)			GRI 401-1/ HKEx B1.2
≤30	72(32.9%)	93(42.3%)	
31-40	23(18.5%)	28(25.7%)	
41-50	7(23.3%)	5(19.2%)	
≥51	4(33.3%)	1(6.7%)	

Occupational safety and health performance	2023	2022	Disclosure reference standard (GRI/ HKEx/ TCFD)
Work-related fatalities	0	0	GRI 403-9/ HKEx B2.1
Loss of working days Note 1	188	61	GRI 403-9/ HKEx B2.2
Ratio of lost working days Note 2	48.8	16.5	

Notes:

(1) Loss of working days means absence for one working day or above caused by occupational injuries. The definition of occupational injuries aligns with the definition of the related labour laws in the regions in which our operation locates.



(2) Ratio of lost working days (or loss of working days due to work-related injuries per 100 full-time employees equivalent) = total loss of working days/total working hours\*annual working hours per 100 full-time employees equivalent. Annual working hours per 100 full-time employees equivalent is calculated by referencing to the standard working hours required by the local labour laws in each of the region in which our operation locates. For Mainland China and Hong Kong, that is 200,000 hours.

Training Statistics	2023	2022	Disclosure reference standard (GRI/ HKEx/ TCFD)
Total hours of training received by employees (hours)	7,112	3,495	
By training theme (hours)			
Occupational skills	1,166	767	
Personal development	5,010	1,846	
Safety training	826	818	
Integrity training	110	64	
By training institution (%)			
Internal training	22.6%	36.8%	
External training	77.4%	63.2%	
Average training hours completed per employee (hours)	18.5	9.4	GRI 404-1/ HKEx B3.2
By gender (hours)			GRI 404-1/ HKEx B3.2
Male	19.9	10.1	
Female	2.4	0.9	
By employee category (hours)			GRI 404-1/ HKEx B3.2
Senior management	4.8	5.2	
Middle management	19.6	7.5	
General staff	18.7	9.5	
Number of employees trained	1,624	1,166	HKEx B3.1
By gender (%)			HKEx B3.1
Male	98.8%	98.3%	
Female	1.2%	1.7%	
By employee category (%)			HKEx B3.1
Senior management	0.9%	0.2%	
Middle management	2.9%	3.2%	
General staff	96.2%	96.6%	



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KPI A2.4	GRI 3-3	Sustainability Goals Ensuring Operational Safety Promoting Green Development The PV power generation process does not consume water. When performing the 0&M of solar power plants, its process is lowly dependent on water resources due to our application of water- saving and environmentally friendly green 0&M models, including waterless solar panel cleaning robot or natural rainwater cleaning. Therefore, there was less reliance on water resources during the 0&M of solar farms, and any change in water resources would not have significant impact on the Group's operation, and the Group has experienced or expected no difficulties in obtaining suitable water sources.	12 60-61 41
KPI A2.5	GRI 301-1	The main businesses of the Group, which are the generation and sales of electricity, the provision of solar farm O&M services for third parties, do not	N/A



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Operating Practices Aspect B5: Supply Chain Management – General Disclosure	GRI 3-3, GRI 204, GRI 308, GRI 414	As the Group is not involved in the production of PV products and the development and construction of solar farms, while PV power generation also does not involve external fuel purchase, therefore, the Group expects that tendering of suppliers will be conducted when significant replacement of solar modules are required in future. A dedicated team is responsible for tendering in accordance with the Group's established supplier management system. As the existing solar farms held by the Group have commenced operation in recent years, the Group only procured insurance for PV equipment, labour protection equipment, services and equipment related to solar farm 0&M and small amount of solar modules during the Reporting Period. Since the scale and amount involved in procurement is relatively small during the Reporting Period, supply chain management is not included as a material issue and the Report does not provide detailed disclosures on relevant issues.	N/A
		For the Group's practice in selecting solar farm developers and business partners, as well as the relevant implementation and monitoring methods	



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please refer to pages 14 to 15.

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KPI B5.4	GRI 3-3, GRI 308-1	As above	N/A
Aspect B6: Product Responsibility – General Disclosure	GRI 3-3, GRI 416-2, GRI 417-2, GRI 417-3, GRI 418-1, GRI 2-27	Enhancing Corporate Governance Ensuring Operational Safety As the Group sells electricity externally, the customers mainly concern about the stability and safety of supply. Privacy related matters, which mainly include protecting the safety of information while transferring information via the centralised O&M platform of Xinyi Energy. Moreover, the business of the Group does not involve advertisements or labels.	54-55 68-69
KPI B6.1	GRI 416-2	The Group sells electricity and therefore does not involve product recalls.	N/A
KPI B6.2	GRI 2-26, GRI 2-29, GRI 418-1	As the Group sells electricity externally, the customers mainly concern about the stability and safety of supply. Therefore, the Group has not formulated any independent policy for product and service complaints in addition to assigning dedicated personnel to maintain effective communication with customers.	N/A

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