



# 北京能源國際控股有限公司

Beijing Energy International Holding Co., Ltd.

(Incorporated in Bermuda with limited liability)

(於百慕達註冊成立之有限公司)

Stock Code 股份代號: 686



# 2024

ENVIRONMENTAL, SOCIAL  
AND GOVERNANCE REPORT

環境、社會及管治報告



The background features a large, stylized graphic of concentric circles. The top half of the circles is blue, and the bottom half is green, creating a visual effect of a horizon line. The circles are composed of many thin, overlapping lines, giving it a textured, ripple-like appearance. The overall color palette is light and airy, with a focus on blues and greens.

## **Vision** **願景**

To become the most respected  
international clean energy  
ecological investment operator  
成為最受尊敬的國際化清潔能源  
生態投資運營商

## **Mission** **使命**

Better energy at fingertips  
讓美好能源觸手可及



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## Feedback

### 意見反饋

# About this Report

## 關於本報告





This is the tenth Environmental, Social and Governance (“ESG”) Report of Beijing Energy International Holding Co., Ltd. (hereinafter referred to as “BJEI” or the “Company”; and collectively with its subsidiaries, the “Group” or “we” or “us”), presenting our continued efforts and effectiveness for driving sustainability and corporate social responsibility. This report should be read in conjunction with the 2024 annual report of the Company (the “2024 Annual Report”) to fully understand the environmental, social and governance performance of the Group. For the corporate governance section, please refer to pages 44 to 86 of the 2024 Annual Report.

The board (the “Board”) of directors (the “Directors”) of the Company acknowledges its responsibility for the authenticity, accuracy and completeness of this report, and guarantees that there are no false records, misleading statements or material omissions in the content of this report. This report elaborates on the material issues identified by the Group and their impact, and objectively demonstrates our performance in managing such issues. This report has been reviewed and approved by the Board.

## BASIS AND PRINCIPLES FOR PREPARATION

This report is prepared in compliance with the Environmental, Social and Governance Reporting Guide (the “ESG Reporting Guide”) set out in Appendix C2 to the Rules Governing the Listing of Securities (the “Listing Rules”) on The Stock Exchange of Hong Kong Limited (the “Stock Exchange”) and with reference to the Global Reporting Initiative (the “GRI”) Sustainability Reporting Standards (the “GRI Standards”).

本報告為北京能源國際控股有限公司（於本報告簡稱「京能國際」、「本公司」或「公司」，連同其附屬公司統稱為「本集團」或「我們」）的第十份環境、社會和管治（「ESG」）報告，致力於展示我們在推動可持續發展和履行企業社會責任方面的努力和成就。本報告應與本公司二零二四年年報（「二零二四年年報」）一併閱覽，以便全面了解本集團的環境、社會及企業管治表現。有關企業管治章節，請參閱二零二四年年報第44頁至86頁。

本公司董事（「董事」）會（「董事會」）確認其為本報告的真實性、準確性和完整性承擔責任，保證本報告內容不存在任何虛假記載、誤導性陳述或重大遺漏。本報告已詳盡闡述本集團所識別的重要性議題及其影響，客觀地展示了我們在處理這些議題方面的績效。董事會已經對本報告進行了審查並予以批准。

## 編製依據及原則

本報告遵循香港聯合交易所有限公司（「聯交所」）證券上市規則（「上市規則」）附錄C2中的《環境、社會及管治報告指引》（「ESG報告指引」），並參考全球報告倡議組織（「GRI」）《可持續發展報告標準》（「GRI標準」）而編製。

This report has complied with the “mandatory disclosure requirements” and “comply or explain” provisions set out in the ESG Reporting Guide, and has been prepared on the basis of the four reporting principles set out in the Guide, i.e. “Materiality”, “Quantitative”, “Balance” and “Consistency”. When preparing this report, the Group applied the reporting principles as follows:

本報告已遵守ESG報告指引中「強制披露規定」及「不遵守就解釋」的條文，並遵循《指引》中的四個匯報原則為編製基礎，即「重要性」、「量化」、「平衡」和「一致性」。在編製本報告的過程中，本集團應用匯報原則的情況如下：

#### Reporting principles 匯報原則

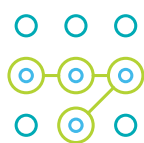
#### How they are applied in the report preparation 報告編製中的應用



##### Materiality 重要性

The Group has made communication with stakeholders and assessed material topics through online questionnaires to identify the material ESG topics and address the concerns of stakeholders. For the process and results of the materiality assessment, please refer to the section headed “Materiality Assessment” of this report.

本集團通過線上調查問卷的方式開展持份者溝通及重要性議題評估，以識別重大的ESG議題並回應持份者的關注。有關重要性的評估過程及結果請參見本報告「重要性評估」章節。



##### Quantitative 量化

The data presented in this report have been checked and verified. For the standards, methods, assumptions and/or calculation tools used to calculate quantitative key performance indicators (“KPIs”), and the sources of the conversion factors applied for the Year, please refer to the section headed “Appendix I: Overview of ESG Key Performance Indicators” of this report.

本報告所呈列的數據已作檢查及核實。有關本年度計算量化關鍵績效指標（「KPIs」）所採用的標準、方法、假設及／或計算工具，以及其所使用的轉換因素的來源，請參見本報告「附錄一：ESG關鍵績效指標概覽」章節。



##### Balance 平衡

This report describes our performance in all aspects of sustainability in an objective, fair and transparent manner.

本報告以客觀、公正、透明的方式闡述其可持續發展各方面的表現。



##### Consistency 一致性

The statistical methods and criteria applied in this report is consistent with last year, and any changes thereto will be clearly stated in this report. Quantitative data are analysed to account for year-on-year changes and are presented in a way that allows for consistent comparison by the stakeholders.

本報告採用與往年相同的統計方法及口徑，如有變更，將於報告中清楚說明。量化數據經分析後以可作按年比較的一致性方式呈列，以供持份者檢閱。



## REPORTING SCOPE AND PERIOD

The reporting period of this report is consistent with the 2024 Annual Report, covering from 1 January 2024 to 31 December 2024 (the “Reporting Period” or “Year”). We identified the scope of this report encompassing business operations of the Company and its subsidiaries, in accordance with the 2024 Annual Report.

## FEEDBACK

This report is published in both traditional Chinese and English. In case of any discrepancy between the two versions, the traditional Chinese version shall prevail. The Group is committed to maintaining communication with stakeholders, understanding and responding to their needs and concerns and accordingly improving the comprehensiveness of this report. We welcome your valuable comments and suggestions on this report and on our sustainability performance through the feedback form which is available at the back of this report.

## 匯報範圍及期間

本報告涵蓋的時間範圍與二零二四年年報一致，為二零二四年一月一日至二零二四年十二月三十一日（「報告期內」或「本年度」）。我們將報告內容範圍界定為本公司及其附屬公司之業務營運，與二零二四年年報保持一致。

## 意見反饋

本報告以繁體中文及英文兩個語言版本發佈。若在內容理解上存在差異，請以繁體中文版本為準。本集團致力與持份者保持溝通，了解及回應其需求和關注，並據此提升報告的完整性。我們歡迎閣下通過本報告背面的反饋表，就報告內容以及我們在可持續發展方面的績效提供寶貴的意見和建議。

# About the **Company**

## 關於**本公司**





## BUSINESS TYPES AND DISTRIBUTION

Beijing Energy International Holding Co., Ltd. is a company listed on the main board of the Stock Exchange. The Group is principally engaged in the project investment and operation in business sectors including wind and photovoltaic power, hydro power, integrated energy, gas turbines and green hydrogen. Its business covers 31 provinces across China, as well as overseas new energy markets such as Australia and Vietnam.

As of 31 December 2024, the Group owned 166 solar power plants, 38 wind power plants, 26 hydro power plants and 3 energy storage power stations with an aggregate grid-connected installed capacity of approximately 12,639 megawatt(s) ("MW"), which had total electricity generation volume of approximately 17,674,684 megawatt hours ("MWh") in 2024. In addition, the Group also held 3 solar power plants, 3 wind power plants and 2 hydro power plants through its associates with an aggregate grid-connected installed capacity of approximately 862MW, which had total electricity generation volume of approximately 1,745,473MWh.

## 業務類型及分佈

北京能源國際控股有限公司是聯交所主板上上市公司。本集團主要從事風電、光伏發電、水電、綜合能源、燃機、綠氫等業務板塊的項目投資運營，業務範圍遍佈國內31個省份，以及澳大利亞、越南等海外新能源市場。

截至二零二四年十二月三十一日，本集團共持有166個太陽能發電站、38個風力發電站、26個水力發電站及3個儲能電站，總併網裝機容量約12,639兆瓦（「兆瓦」），二零二四年的總發電量約為17,674,684兆瓦時（「兆瓦時」）。此外，本集團亦透過其聯營公司持有3個太陽能發電站、3個風力發電站及2個水力發電站，總併網裝機容量約862兆瓦，總發電量約為1,745,473兆瓦時。



- |                   |     |
|-------------------|-----|
| 1. Hebei          | 河北  |
| 2. Jilin          | 吉林  |
| 3. Shandong       | 山東  |
| 4. Shanxi         | 山西  |
| 5. Henan          | 河南  |
| 6. Inner Mongolia | 內蒙古 |
| 7. Shaanxi        | 陝西  |
| 8. Ningxia        | 寧夏  |
| 9. Gansu          | 甘肅  |
| 10. Anhui         | 安徽  |
| 11. Zhejiang      | 浙江  |
| 12. Hubei         | 湖北  |
| 13. Hunan         | 湖南  |
| 14. Guangdong     | 廣東  |
| 15. Guangxi       | 廣西  |
| 16. Yunnan        | 雲南  |
| 17. Sichuan       | 四川  |
| 18. Qinghai       | 青海  |
| 19. Xizang        | 西藏  |
| 20. Xinjiang      | 新疆  |
| 21. Beijing       | 北京  |
| 22. Heilongjiang  | 黑龍江 |
| 23. Jiangxi       | 江西  |
| 24. Liaoning      | 遼寧  |
| 25. Jiangsu       | 江蘇  |
| 26. Hainan        | 海南  |
| 27. Tianjin       | 天津  |
| 28. Shanghai      | 上海  |
| 29. Chongqing     | 重慶  |
| 30. Guizhou       | 貴州  |
| 31. Fujian        | 福建  |

## CHRONOLOGY OF EVENTS IN 2024

## 二零二四年大事記

1

## The AVIC-Jingneng Photovoltaic REIT was selected as one of the first pilot projects for ESG evaluation of electric power engineering projects 中航京能光伏REIT入選首批電力工程ESG評價試點項目

In December 2024, the Company was invited to attend the Electric Power Construction Sustainability (ESG) Conference hosted by the China Electric Power Construction Association. At the conference, the AVIC-Jingneng Photovoltaic REIT issued by BJEI was granted the qualification as one of the first pilot projects for ESG evaluation of electric power engineering projects. The conference released the social organisation standard of "Environmental, Social and Governance (ESG) Evaluation of Electric Power Engineering Projects", which for the first time specified the ESG evaluation indicators and principles for electric power engineering projects at the project level. The AVIC-Jingneng Photovoltaic REIT will participate in the first round of evaluation as one of the first pilot projects. This selection is not only a recognition of the Company's ESG practice achievements, but also demonstrates its professional influence in the industry.

2024年12月，本公司受邀出席中國電力建設企業協會舉辦的電力建設可持續發展(ESG)會議。會上，京能國際發行的中航京能光伏REIT被授予首批電力工程ESG評價試點項目資格。會議發佈了《電力工程項目環境、社會和治理(ESG)評價》團體標準，首次從項目層面明確了電力工程ESG評價指標與原則。中航京能光伏REIT將作為首批試點項目參與首輪評價工作。此次入選不僅是對公司ESG實踐成果的肯定，也彰顯了其在行業內的專業影響力。



2

## The Company released its Sustainable Financing Framework for the first time 首次發佈可持續融資框架

In December 2024, the Company released its Sustainable Financing Framework, which is applicable to the Company's green, social and sustainable development financing. Sustainable Fitch, an internationally renowned ratings firm, granted the framework an "excellent" rating (the highest level). This marks an important progress for the Company in green development and social responsibility, providing diversified financing support for green and social projects and facilitating the accomplishment of sustainable development goals.

2024年12月，本公司發佈《可持續融資框架》，適用於公司開展綠色、社會、可持續發展融資。國際知名認證機構惠譽常青對該框架授予了「優秀」等級(最高級別)。此舉標誌著本公司在綠色發展和社會責任方面的重要進展，為綠色和社會項目提供多元化融資支持，助力可持續發展目標的實現。





### 3

#### The Company won the “2023 Electric Power Enterprise Social Responsibility (Environmental Protection) Outstanding Case Award”

##### 榮獲2023年度電力企業社會責任環境保護類優秀案例獎

At the 2024 Electric Power Enterprise Social Responsibility and ESG Work Exchange Conference hosted by the China Electricity Council in Guangzhou, after being screened through the stages of group recommendation, expert assessment, review and publication, the Company’s case of “Guardian of the Green, Using Photovoltaic Power Generation to Control Desertification” won the “2023 Electric Power Enterprise Social Responsibility (Environmental Protection) Outstanding Case Award”.

由中國電力企業聯合會主辦的二零二四年度電力企業社會責任及ESG工作交流大會中在廣州舉辦，經過集團推薦、專家評審、審核公佈等環節層層篩選，本公司案例《綠色守護者，以光伏發電治沙》榮獲「2023年度電力企業社會責任環境保護類優秀案例獎項」。



### 4

#### The Company successfully issued the industry’s first green rural revitalisation supply chain project

##### 成功發行行業首單綠色鄉村振興供應鏈項目

On 2 April 2024, the Company successfully issued the first green rural revitalisation supply chain finance special scheme, with a scale of RMB301 million and a maturity of 2 years. This project is the first breakthrough of an overseas entity supply chain project led by a state-owned enterprise in the electric power industry and the field of green rural revitalisation. This has not only enriched the Company’s financing channels, but also guided funds to flow into green industries and rural revitalisation, demonstrating our social responsibility as a state-owned enterprise.

2024年4月2日，本公司成功發行首單綠色鄉村振興供應鏈金融專項計畫，規模為人民幣3.01億元，期限2年。該項目是國企主導的境外主體供應鏈項目在電力行業及綠色鄉村振興領域的首次突破。這不僅豐富了公司融資管道，還引導資金流向綠色產業和鄉村振興，展現了國企的社會責任。



## KEY PERFORMANCE IN 2024

## 二零二四年關鍵績效

Environmental Performance  
環境績效Goals of the national  
"14<sup>th</sup> Five-Year Plan":  
國家「十四五」規劃目標：

**2025年**  
可再生能源發電量佔全社會用電量增量  
**>50%**年發電量約**3.3**萬億千瓦時

**2025**  
Renewable energy generation volume  
accounting for **>50%** of increase in total  
electricity consumption in society  
Annual electricity generation volume of  
approximately **3.3 trillion kWh**

**2030年**  
非化石能源消費佔比約**25%**  
風電和太陽能裝機容量**>12**億千瓦

**2030**  
Non-fossil energy consumption  
accounting for approximately **25%**  
Wind power and solar power installed  
capacity of **>1.2 billion kW**

**Reaching carbon peak by 2030 and  
achieving carbon neutrality by 2060**  
2030年碳達峰力爭2060年碳中和

BJEI's outstanding achievements in response to  
the national strategies in 2024  
京能國際2024年度回應國家戰略的卓越成果

Diversified energy  
strategic layout  
多元能源戰略佈局

- Solar power plants (including 3 power plants of our associates): 169  
太陽能發電站(含3個聯營公司電站)：169個
- Wind power plants (including 3 power plants of our associates): 41  
風力發電站(含3個聯營公司電站)：41個
- Hydro power plants (including 2 power plants of our associates): 28  
水力發電站(含2個聯營公司電站)：28個
- Energy storage power stations: 3  
儲能電站：3個

We had **41** new  
power plants  
during the Year  
本年度新增電站  
**41**個

Continuous expansion  
of clean energy  
清潔能源規模  
持續擴大

- Aggregate grid-connected installed capacity (including associates): 13,501MW  
總併網裝機容量(包括聯營公司)：13,501兆瓦
- Total electricity generation volume (including associates): 19,420,157MWh  
總發電量(包括聯營公司)：19,420,157兆瓦時
- Asset size of almost RMB102.3 billion  
資產規模近1,023億元

Our installed  
capacity increased  
**fourfold** in three  
years  
裝機規模  
三年間增長  
**4**倍

Achieving  
exceptional results  
in carbon reduction  
through green power  
generation  
綠色發電成就非凡  
減碳成效

- Total electricity generation volume in 2024 was equivalent to:  
二零二四年總發電量相當於：
- Saving 5,921.2 thousands tons of standard coal  
節約592.12萬噸標準煤
- Saving 9,710.08 tons of soot emission  
節約9,710.08噸煙塵
- Reducing 16,157.6 thousands tons of carbon dioxide emission  
減排1,615.76萬噸二氧化碳
- Planting 882,927.4 thousands trees  
種植88,292.74萬棵樹
- Reducing 582.6 thousands tons of sulphur dioxide emission  
減排58.26萬噸二氧化硫
- Providing 12,946.8 thousands household's electricity consumption in a year  
提供1,294.68萬戶居民一年的用電量

Reduction of  
carbon dioxide  
emission  
increased by **41%**  
as compared with  
last year  
二氧化碳減  
排量較上年  
**↑41%**

## Social Performance

Total number of employees: 1,918  
Total training hours: 451,735  
Average training costs per employee: RMB2,148  
Zero work-related fatalities for 10 consecutive years  
Regular inspection rate for occupational hazards: 100%  
Total number of hazards inspected: 1,530  
Completion rate of hazard rectification: 100%

## 社會績效

員工總數：1,918  
培訓總時數：451,735  
僱傭人均培訓開支：2,148人民幣元  
連續10年因工亡故人數：零  
職業性危害因素定期檢測率：100%  
隱患排查總數：1,530項  
隱患整改完成率：100%

## Governance and Economic Performance

Independent non-executive Directors accounted for 36.4%  
Coverage of anti-corruption training for Directors: 100%  
Number of corruption litigations: Zero  
EBITDA (RMB million): 5,622 (2023: 4,559)  
Revenue (RMB million): 7,011 (2023: 5,568)

## 管治及經濟績效

獨立非執行董事佔比：36.4%  
董事反貪污培訓覆蓋率：100%  
貪污訴訟案件數目：0件  
EBITDA(人民幣百萬元)：5,622(二零二三年：4,559)  
收入(人民幣百萬元)：7,011(二零二三年：5,568)



## KEY ESG HONOURS IN 2024 二零二四年主要ESG榮譽



ESG Ratings  
ESG評級

Sustainable Fitch:  
ESG Entity Rating  
of 2, and an entity  
score of 78

惠譽常青：  
ESG主體評級2級  
及主體評分78分



ESG Ratings  
ESG評級

Sustainalytics:  
25.1  
Medium risk

晨星：  
25.1  
中度風險



At the 2024 Electric Power Enterprise Social Responsibility and ESG Work Exchange Conference hosted by the China Electricity Council, the Company's case of "Guardian of the Green, Using Photovoltaic Power Generation to Control Desertification" won the "2023 Electric Power Enterprise Social Responsibility (Environmental Protection) Outstanding Case Award".  
在由中國電力企業聯合會主辦的二零二四年度電力企業社會責任及ESG工作交流大會中，本公司案例《綠色守護者，以光伏發電治沙》榮獲「2023年度電力企業社會責任環境保護類優秀案例獎項」。



At the "9th Zhitong Caijing Capital Market Annual Conference and Listed Company Award Ceremony", the Company was awarded the "Best ESG Innovation Award".  
在「第九屆智通財經資本市場年會暨上市公司頒獎典禮」上，本公司榮獲「最佳ESG創新獎」獎項。



In the annual selection of the "Golden Osmanthus Awards" at the 8th CNABS Asset Securitisation Annual Conference, the "BJEI Asset-Backed Special Scheme (Carbon Neutrality) (First Tranche)" issued by the Company won the "Best Green Financial Product Award".  
在第八屆CNABS資產證券化年會「金桂獎」年度評選中，本公司發行的「京能國際1期資產支持專項計劃(碳中和)」產品榮獲「最佳綠色金融產品獎」。



The "BJEI Asset-Backed Special Scheme (Carbon Neutrality) (First Tranche)" issued by the Company won the "Annual Outstanding Project" award for corporate asset securitisation in the exchange market at the 10th China Securitisation Forum ("CSF") Annual Conference in 2024.  
由本公司發行的「京能國際1期資產支持專項計劃(碳中和)」榮獲2024第十屆中國資產證券化論壇「CSF」年會頒發的交易所市場企業資產證券化「年度優秀項目」獎項。

## KEY ESG HONOURS IN 2024 二零二四年主要ESG榮譽



At the 2024 New Energy and Electric Power Market Innovation and Development Conference and the 14<sup>th</sup> Global Top 500 New Energy Enterprises Summit, the Company once again made the list with its solid comprehensive strength in the field of new energy and ranked 340<sup>th</sup> among the "Global Top 500 New Energy Enterprises", representing a significant rise of 70 places from last year, demonstrating the Company's market influence and global comprehensive competitiveness.

在2024新能源與電力市場創新發展大會暨第十四屆全球新能源企業500強峰會上，本公司憑藉在新能源領域堅實的綜合實力再次上榜，榮登「全球新能源企業500強」第340位，較去年大幅提升70位，彰顯本公司市場影響力及全球綜合競爭力。



The China Energy Research Society and Beijing Green Credit Rating Co., Ltd. evaluated the sustainability disclosure systems of listed companies in China's energy sector. The Company stood out from 636 companies and ranked 11<sup>th</sup> on the list of 2024 Top 100 Chinese Energy Listed Companies.

中國能源研究會和北京萬家綠色信用評級有限公司對中國能源領域上市公司進行了可持續發展披露體系的評價，本公司從636家企業中脫穎而出，躋身2024中國能源上市公司百強榜第11名。



# Chairman's **Message**

## 主席**致辭**





2024 was the fifth year after BJEI's reorganisation. Over the past five years, we have always been in sync with the national strategies. At the crucial juncture of the end of the "14<sup>th</sup> Five-Year Plan" and the 75<sup>th</sup> anniversary of the founding of New China, we seized the opportunities arising from global energy transition and unswervingly followed the path of green and low-carbon development. The Company's management and staff members have unified their thinking and forged a consensus, established a clear development plan, and deeply integrated ESG concepts into corporate strategies and daily operations. We have adhered to the principle of "being people-oriented", set up a market-oriented recruitment and appointment mechanism, brought together a corporate culture with "inclusive culture" as its core, and accomplished remarkable results in terms of, among others, project development, operations management, safe production and compliance system construction. Over the past five years, we have always integrated ESG concepts into every aspect of corporate development. From improving the transparency and standardisation of corporate governance, to promoting green energy and low-carbon transition, and to ensuring the safety and health of employees, we have made every effort to facilitate the implementation of various strategic initiatives and contribute to the attainment of sustainable development goals.

Over the past five years, BJEI has continuously optimised its governance and constantly improved its governance standards, providing a solid guarantee for sustainable development. At the beginning of 2024, the Company established the Sustainability Committee to deepen the construction of the sustainable management system. Meanwhile, we also set up a new supervision mechanism incorporating "discipline inspection, audit, legal affairs, internal control, and compliance", and deeply integrated the focus of supervision with our core businesses, thereby establishing a full-coverage risk management system with cross-checks and balances led by audit supervision and coordinated by various types of supervision. We have attached great importance to investor relations management and actively safeguarded the rights and interests of investors. Not only have we received an

二零二四年，京能國際迎來了重組後的第五個年頭。五年來，我們始終與國家戰略同頻共振，在「十四五」規劃收官和新中國成立75週年的重要節點上，緊抓全球能源轉型機遇，堅定不移地走綠色低碳發展道路。公司上下統一思想、凝聚共識，確立了清晰的發展規劃，並將ESG理念深度融入企業戰略與日常運營。我們堅持「以人為本」，建立了市場化選人用人機制，形成了以「融文化」為核心的企業文化，在項目開發、經營管理、安全生產及合規體系建設等方面取得顯著成績。五年來，我們始終將ESG理念貫穿於企業發展各環節，從提升公司治理的透明度與規範性，到推動綠色能源低碳轉型，再到保障員工安全與健康，我們全力推進各項戰略舉措落地生根，為實現可持續發展目標貢獻力量。

五年來，京能國際在管治領域持續優化，不斷提升治理水平，為可持續發展提供堅實保障。2024年初，公司成立可持續發展委員會，深化可持續管理體系建設，同時我們創新「紀檢、審計、法務、內控、合規」貫通監督機制，將監督重點與核心業務深度融合，建立以審計監督為主導、各類監督協同的全覆蓋、交叉制衡風險管理體系。我們高度重視投資者關係管理，積極維護投資者權益。我們不但憑藉出色的環境、社會與治理實踐，獲惠譽常青ESG 78分、主體2分的優秀

excellent rating with a score of 78 and an entity rating of 2 in Sustainable Fitch's ESG Ratings for our outstanding environmental, social and governance practices, but we were also awarded the international credit ratings of "A" from Fitch and "BBB+" from Standard & Poor's and the domestic credit rating of "AAA" from Lianhe Credit for our overall governance performance, thereby establishing the most competitive credit system in China's electric power industry. By organising a number of stakeholder exchange events, we fully listened to the opinions of all parties to improve our governance standards, thereby achieving a win-win situation of economic benefits and social responsibility. With our excellent governance standards, the Company was awarded the Second Prize for National Management Modernisation Achievement.

While continuously optimising the governance system, BJEI has always adhered to the principle of "being people-oriented", and is committed to creating a safe, healthy and equal working environment for its employees and contributing to community development. We have continuously improved our safety management capabilities, and had no production safety accidents for five consecutive years. By implementing the market-oriented employment mechanism that "employees can be promoted or demoted, be increased or decreased, and enter or leave", we have provided our employees with a broad space for career development. Meanwhile, we have actively participated in promoting social responsibility practices such as industry development, rural revitalisation and community services, thereby demonstrating our responsibility as a state-owned enterprise, giving back to society with practical actions, and practicing corporate social responsibilities.

評級，整體的管治表現更獲得惠譽「A」、標普「BBB+」國際信用評級及聯合資信「AAA」境內評級，打造了中國電力行業最具競爭力的信用體系。通過組織多場持份者交流活動，我們充分聽取各方意見，提升治理水平，實現了經濟效益與社會責任的雙贏，公司憑藉優秀的治理水平獲得了國家級管理現代化成果二等獎。

在持續優化管治體系的同時，京能國際始終堅持「以人為本」，致力於為員工創造安全、健康、平等的工作環境，更為社區發展貢獻力量。我們安全管理能力不斷提高，連續五年未發生安全生產事故。通過推行「能上能下、能增能減、能進能出」的市場化用人機制，我們為員工提供了廣闊的職業發展空間。同時，我們踴躍參與推動行業發展、鄉村振興和社區服務等社會責任實踐，彰顯國企擔當，以實際行動回饋社會，踐行企業社會責任。

In addition to actively practicing humanistic care, BJEI is well aware that social responsibilities also involve the protection of the environment. We have unwaveringly followed the path of green and low-carbon development, continuously enriched our layout in the clean energy industry, promoted the high-quality development of wind power, photovoltaic power, hydro power, hydrogen energy and integrated energy, and actively facilitated the transition of the energy structure, thereby making key contribution to global sustainable development. As of the end of 2024, the Company had an aggregate grid-connected installed capacity of 13,501MW, and our total electricity generation volume in 2024 was equivalent to reducing carbon dioxide emissions by approximately 16,157.6 thousands tons. We have actively promoted the strategy of “establishing bases, synergies and internationalism”. Our base projects on the north-circle have made breakthroughs, and our high-yield projects on the south-circle have been effectively developed, and we have achieved remarkable results in the development of the integrated energy market centred on Beijing. We have successfully developed Beijing’s largest centralised photovoltaic project, i.e. the Miyun Mujiayu Dayan (Phase I) 60MW photovoltaic power generation project, thereby contributing to the green development of Beijing. Meanwhile, we have been actively expanding overseas markets and have become a leader among Chinese companies in the field of clean energy in Australia. We have always adhered to the concept of “prioritising protection first, focusing on prevention, making comprehensive management, highlighting key points, and implementing comprehensive control”. In our photovoltaic power, wind power and other projects, we have given priority to protecting the ecological environment, and applied energy-saving technologies in daily operations, striving to reduce our environmental impact and promoting green and low-carbon development.

除了積極踐行人文關懷，京能國際深知社會責任更涵蓋對環境的守護。我們堅定不移地走綠色低碳發展道路，不斷豐富清潔能源產業佈局，推動風電、光伏、水電、氫能、綜合能源等高質量發展，積極推動能源結構轉型，為全球可持續發展貢獻了重要力量。截至二零二四年底，公司總並網裝機容量高達13,501兆瓦，二零二四年總發電量相當於減少二氧化碳排放約1,615.76萬噸。我們積極推進「基地化、協同化、國際化」戰略，北環線基地項目取得突破性進展，南環線高收益項目有效拓展，以首都為中心的綜合能源市場開發成果顯著。我們成功開發了北京最大的集中式光伏項目——密雲穆家峪達巖一期60MW光伏發電項目，為首都綠色發展貢獻力量。同時，我們積極拓展海外市場，已成為澳洲清潔能源領域的中資企業領航者。我們始終秉持「保護優先、預防為主、綜合治理、突出重點、全面管控」的理念，在光伏、風電等項目中，優先保護生態環境，在日常運營中應用節能技術，致力減少環境影響，助力綠色低碳發展。



On the basis of fully implementing ESG concepts, BJEI has always closely integrated sustainable development with economic benefits, and facilitated the high-quality development of green finance and clean energy with excellent production quality, so as to create long-term value for the shareholders, employees and society. In 2024, the Company recorded revenue of approximately RMB7.011 billion, net profit of approximately RMB557 million and total assets of RMB102.469 billion. We have always maintained excellent and efficient production quality. Our provincial and regional production benchmarking rankings have continuously improved, and the scale and income of our green electricity and green certificate transactions have increased year by year. We have successfully listed the first domestic photovoltaic public offering REITs with an excellent market performance, and are currently orderly facilitating the subsequent expansion of hydro power REITs with the level of asset securitisation continuously improving, thereby making key contribution to the popularisation of clean energy. In terms of operation and maintenance management, through continuous cost reduction and efficiency improvement, our installed capacity managed per operation and maintenance personnel has reached more than 2 times the market average, significantly improving our operational efficiency and economic benefits, and laying a solid foundation for the Company's sustainable development.

在全面踐行ESG理念的基礎上，京能國際始終將可持續發展與經濟效益緊密結合，以優異的生產質量推動綠色金融及清潔能源高質量發展，為股東、員工及社會創造了長期價值。2024年，公司實現收入約人民幣70.11億元，淨利潤約人民幣5.57億元，總資產達人民幣1,024.69億元。我們秉持卓越高效的生產質量，省內和區域生產對標排名不斷提升，綠電和綠證交易規模與收益實現連年增長，我們成功上市國內首單光伏公募REITs，市場表現優異，現正有序推進後續水電REIT擴募，資產證券化水平不斷提升，為清潔能源普及貢獻重要力量。在運維管理上，通過持續降本增效，運維人均管理裝機容量達到市場平均水平的2倍以上，顯著提升了運營效率與經濟效益，為公司可持續發展奠定了堅實基礎。

Standing at a new historical starting point with over RMB100 billion of assets and over 10GW of installed capacity, BJEI will continuously uphold the ESG concepts and move unswervingly towards a future of sustainable development. We gather talents with sincerity, draw a blueprint together with our employees and share our success with them. We build consensus with trust, and work with our shareholders and partners to seek development together. We achieve future success with our responsibilities, and protect the ecology and create brilliance together with our industry partners. We will move forward unwaveringly amid challenges and opportunities, grow continuously through reflection and summarisation, and accumulate momentum through quality improvement and efficiency enhancement. In the future, we will continuously contribute to the achievement of the goals of “carbon peak and carbon neutrality”, enable green and better energy at fingertips, and work together to create a brilliant chapter of sustainable development.

**Zhang Ping**

*Chairman of BJEI*

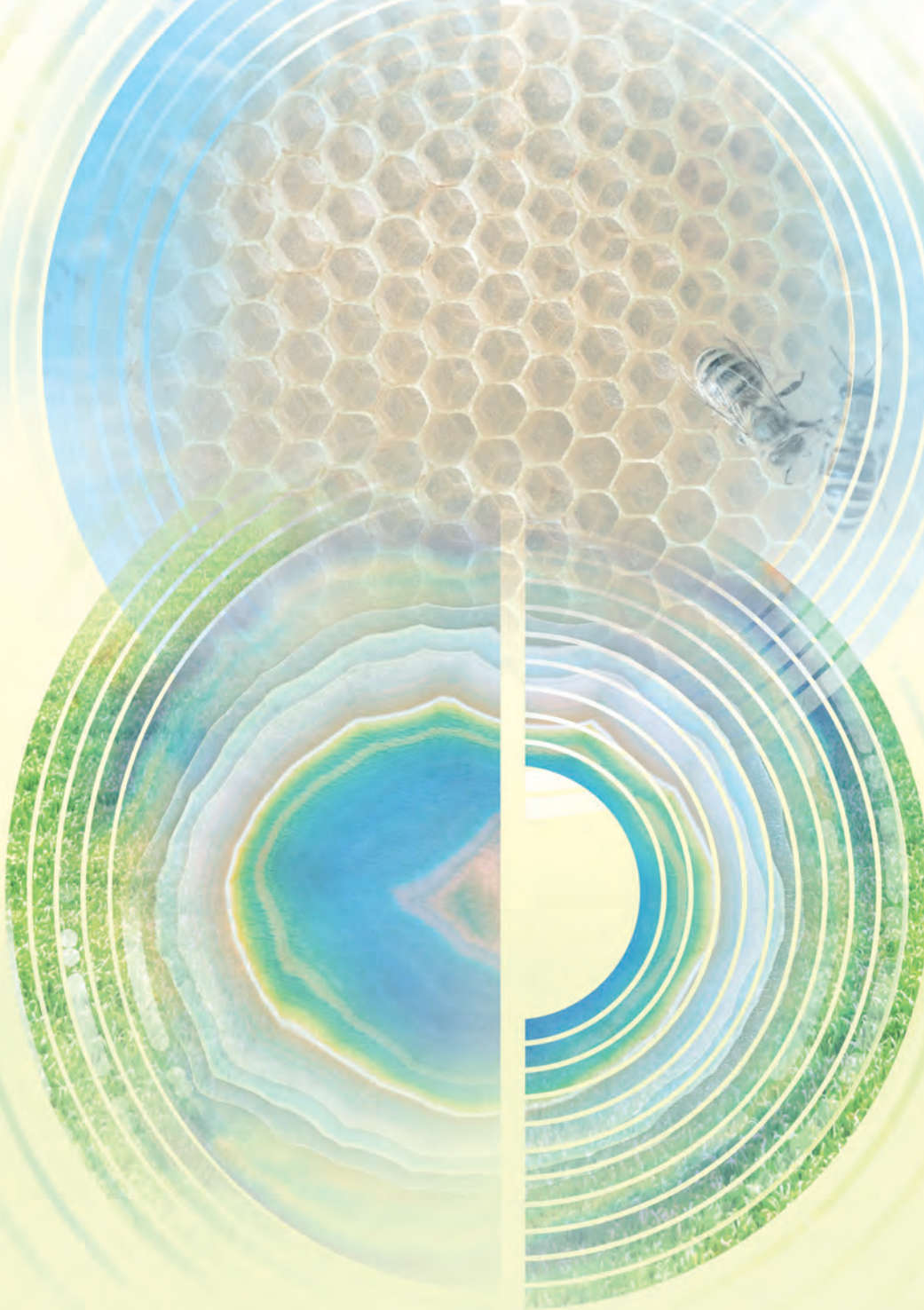
站在資產規模過千億、裝機容量超千萬千瓦的歷史新起點上，京能國際將繼續秉持ESG理念，堅定不移地邁向可持續發展未來。我們以誠匯聚人才，與員工共繪藍圖、共享成功；以信凝聚共識，與股東夥伴同心聚力、共謀發展；以責成就未來，與行業夥伴同護生態、共創輝煌。面對挑戰與機遇，我們將穩步前行；在反思與總結中，我們將持續提升；在提質與增效中，我們將積蓄能量。未來，我們會持續為實現「碳達峰、碳中和」目標貢獻力量，讓綠色、美好的能源觸手可及，攜手共創可持續發展的輝煌篇章。

京能國際董事會主席

**張平**

Maintain Robust Governance and  
**Build the Foundation for  
Sustainability**

穩健治理 鑄造永續基石





## STATEMENT OF THE BOARD

The Company continuously facilitates the construction of a clean energy industrial ecosystem dominated by green energy, complemented by multiple energy sources and characterised by smart collaboration. Under the leadership of the Board, we actively practice the concept of sustainability. The Board, as the highest governance body for monitoring sustainable development, is responsible for overseeing the management policies and strategic direction for the Group's sustainable development, including evaluating, prioritising and managing major ESG-related risks and opportunities, identifying the Group's material issues, supervising and timely reviewing the completion of targets, and fulfilling the Board's oversight responsibilities for ESG issues. The Group has authorised the Sustainability Committee to be responsible for implementing the sustainability-related issues of the Group. The committee consists of at least three Directors and holds no less than one meeting each year to discuss the Group's work on sustainability. In order to ensure the authenticity, compliance and effectiveness of the Group's information disclosure, the Board has reviewed in detail and approved the ESG report, and confirmed that it assumes full responsibility for the ESG report.

## ESG GOVERNANCE STRUCTURE

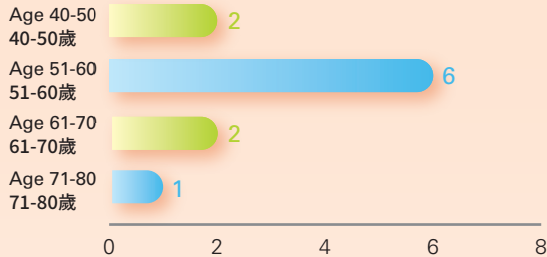
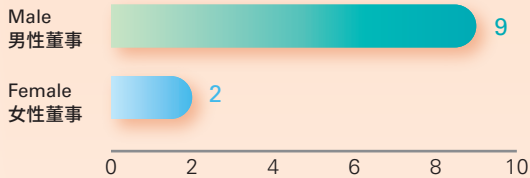
The Group has a diverse Board that guides the Company's decision-making, including the direction of sustainable development. The composition of the Board takes into account the requirements of diversity, experience and skills. The Directors come from different professional backgrounds such as business administration, economics, finance, law and engineering, and possess abundant experience in the energy industry and corporate management. The different career backgrounds and academic qualifications of the Board members can bring diverse perspectives and ways of thinking to the Company, thereby enhancing the comprehensiveness of decision-making, and facilitating the Company's innovative development in different fields.

## 董事會聲明

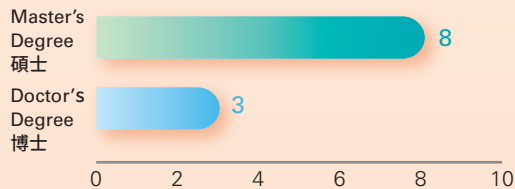
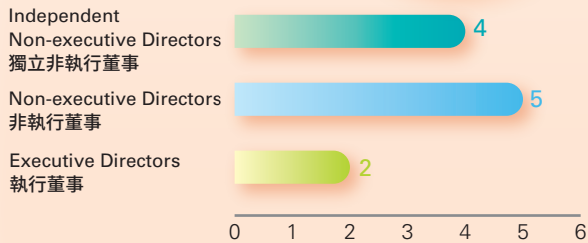
本公司持續推進構築綠色為主、多能互補、智慧協同的清潔能源產業生態體系，在董事會的領導下，我們積極實踐可持續發展理念。董事會作為監督可持續發展的最高管治機構，負責監督本集團可持續發展的管理方針及戰略方向，包括評估、優次排列及管理重大ESG相關的風險及機遇，確認本集團的重要議題，同時監察並適時檢討目標完成進度，履行董事會對ESG事宜的監督責任。本集團已授權可持續發展委員會負責執行本集團之可持續發展相關事宜，委員會由不少於三名董事組成，每年舉行不少於一次會議以討論本集團可持續發展方面的工作。為確保本集團信息披露的真實性、合規性及有效性，董事會已詳細審閱及批准ESG報告，並確認就ESG報告承擔全部責任。

## ESG管治架構

本集團擁有多元化的董事會，引領公司決策，包括可持續發展方向。我們董事會成員組成兼顧多元化、經驗及技能方面的要求，各董事來自工商管理、經濟學、金融學、法律、工程等專業，擁有豐富的能源行業從業經驗及企業管理經驗。董事會成員的不同工作背景和學歷構成，能夠為公司帶來多樣化的視角和思考方式，增強決策的全面性，並促進公司在不同領域的創新發展。




**INFORMATION OF BJEI'S  
BOARD MEMBERS IN 2024**  
二零二四年京能國際董事會成員信息



Pursuant to the relevant requirements of the Listing Rules and the Bye-Laws of the Company as amended from time to time, we have established the Sustainability Committee and ESG working group (the “ESG Working Group”) to implement the Board’s strategies and policies on ESG. The committee consists of Board members at the decision-making and managerial level, and is committed to ensuring that ESG decisions are integrated into the Group’s development strategies and are effectively implemented. The ESG Working Group consists of departmental heads and general staff at the execution level. Our ESG governance structure clearly divides the responsibilities and roles of each level. The following is an overview of the structure:

我們根據上市規則的相關規定及本公司不時修訂的章程細則，成立了可持續發展委員會以及ESG工作小組（「ESG工作小組」），以執行董事會在ESG方面的策略和政策。委員會由決策層和管理層的董事會成員組成，致力確保ESG的決策被整合進集團的發展戰略中，並且得到有效的執行；而ESG工作小組由執行層的部門領導及一般員工組成。我們的ESG管治架構清晰劃分各層級的職責和角色，以下是架構概要：

ESG Governance Structure ESG管治架構	Main Responsibilities 主要職責	Members 參與成員
 <b>Decision-making and managerial level 決策層及管理層</b>	<b>Board 董事會</b> <ul style="list-style-type: none"><li>Serving as the highest governance body responsible for the oversight and decision-making on ESG matters for the Group; 作為本集團最高管治機構，負責監管ESG事宜並就其作出決策；</li><li>Being responsible for nominating and electing the members of the Sustainability Committee; and 負責提名及挑選可持續發展委員會成員；及</li><li>Receiving presentations from the Sustainability Committee on sustainability issues and matters at Board meetings. 在會議中，董事會會聽取可持續發展委員會就有關可持續發展議題及事宜的匯報。</li></ul>	All Directors 全體董事
	<b>Sustainability Committee 可持續發展 委員會</b> <ul style="list-style-type: none"><li>Developing, directing and reviewing the Group’s sustainability management objectives, goals, strategies, policies, systems and frameworks; 制定、指導及審閱本集團可持續發展管理宗旨、目標、策略、政策、系統及框架；</li><li>Identifying and evaluating the Group’s sustainability materiality, prioritisation and process for managing key ESG-related issues, and making recommendations to the Board on the determination of the Group’s sustainability materiality and matrix; 識別及評估就管理關鍵ESG相關議題的本集團可持續發展的重要性、優先次序及流程，並就釐定本集團可持續發展的重要性及矩陣向董事會作出建議；</li><li>Regularly reviewing and monitoring the progress of the Group’s sustainability objectives, the implementation of policies and the effectiveness of strategies; 定期審查並監察本集團可持續發展目標的進展、政策的實施及策略的有效性；</li></ul>	Chairman: Mr. Zhang Ping (Chairman of the Board) 主席： 由董事會主席 張平先生擔任  Members: Non-Executive Director – Mr. Su Yongjian Independent Non- Executive Director – Ms. Jin Xinbin 委員： 非執行董事 —蘇永健先生 獨立非執行董事 —靳新彬女士



ESG Governance Structure ESG管治架構	Main Responsibilities 主要職責	Members 參與成員
<div><p>Decision-making and managerial level 決策層及管理層</p></div>	<div><p><b>Sustainability Committee</b> 可持續發展委員會</p><ul style="list-style-type: none"><li>Monitoring the ratings of third parties in relation to the Group's sustainability performance and advising on the actions required to improve the performance of the ratings; 針對本集團可持續發展表現有關的第三方評級進行監察，並就改善評級表現所需的行動提供建議；</li><li>Reviewing the Group's climate change-related work (including the implementation of climate change-related response strategies and measures); 檢討本集團氣候變化相關工作(包括實施氣候變化相關應對策略及措施)；</li><li>Discussing regularly with the ESG Working Group and management on sustainability matters, including sustainability strategies and actions; 定期與ESG工作小組及管理層就可持續發展事宜，包括可持續發展戰略及行動進行討論；</li><li>Reviewing and ensuring the authenticity, accuracy and completeness of the ESG report, and recommending the report and other relevant documents to the Board for approval; and 審閱及確保ESG報告的真實性、準確性及完整性，並將報告及其他相關文件提交予董事會批准；及</li><li>Performing other functions related or incidental to the foregoing which the Sustainability Committee deems appropriate. 履行與前述相關或附帶且可持續發展委員會認為屬適當之其他職務。</li></ul></div>	<div><p>Including representatives from the following departments: Company Secretary Department, Human Resources Department, Production Safety Department, Engineering Management Department, Audit and Supervision Department, Legal Compliance Department, Company Office, Business Planning Department, Digital Information Centre 包括以下部門代表： 公司秘書部，人力資源部，安全生產部，工程管理事業部，審計監督部，法律合規部，公司辦公室，經營計劃部，數字信息中心</p></div>
<div><p>Execution level 執行層</p></div>	<div><p><b>ESG Working Group</b> ESG工作小組</p><ul style="list-style-type: none"><li>Assisting the compilation of the ESG report and collecting ESG-related information required by the Group; 協助ESG報告編製工作及收集本集團所需的ESG相關信息；</li><li>Monitoring the ESG performance of the Group; 監察本集團ESG實踐成效；</li><li>Identifying the ESG risks of the Group; 識別本集團ESG風險；</li><li>Reporting regularly to the Sustainability Committee on the progress and effectiveness of its work; and 定期向可持續發展委員會匯報工作進展及成效；及</li><li>Providing necessary assistance and support during the implementation of the Group's ESG strategies. 在推行本集團ESG戰略的過程中提供必要的協助和支持。</li></ul></div>	

During the Year, the Sustainability Committee held a meeting to understand the results and progress of ESG work for the Year, and considered and approved the 2023 ESG report. Moreover, the ESG Working Group also conducted two ESG trainings during the Reporting Period to deepen its members' understanding of ESG concepts.

## ESG PERFORMANCE APPRAISAL

To fulfil the Group's commitment to environmental protection, we have established a target responsibility management system and signed the target responsibility letter for environmental protection and the responsibility letter for production safety with our branches and subsidiaries. We have also incorporated ESG indicators into the assessment of business performance, in which enterprises, departments and individuals who have made outstanding contributions in achieving our environmental protection management objectives and production safety are recognised and rewarded, and enterprises, departments and individuals who have been involved in environmental incidents and safety accidents are punished.

## STAKEHOLDER COMMUNICATION

The Company firmly believes that thoroughly understanding the opinions of stakeholders is overarching for strengthening ESG management. Based on factors such as the potential changes in the Company's principal businesses and operating environment and the mutual influence between stakeholders and the Company, the Group has identified the key stakeholder groups of the Company. We have developed diversified channels of communication with stakeholders, including the government and regulators, shareholders/investors, business partners/suppliers, peers, customers, employees, community and the public. Having fully understood stakeholders' concerns regarding ESG risks and challenges, the Group actively responds and formulates strategic policies with a precise direction. In 2024, the Group held 112 meetings with external stakeholders to discuss in depth on cooperation and development issues. At the same time, we also held 58 seminars with internal subsidiaries in which in-depth discussions were made. These aim at fully listening to the opinions and suggestions of internal and external stakeholders, and thus providing diversified perspectives and valuable information for the Group's decision-making.

本年度，可持續發展委員會召開一次會議以了解年度ESG工作成果及進展，並審議通過2023年度ESG報告；另外ESG工作小組亦於報告期內進行2次ESG培訓，以深化工作小組成員對ESG概念的了解。

## ESG實踐成效評估




為了履行本集團對環境保護的承諾，我們建立了一套目標責任管理系統，並與各分公司及附屬公司訂立環境保護目標責任書及安全生產責任書。同時我們將ESG指標納入經營績效考核，以此來表彰和獎勵那些在實現環保管理目標和安全生產方面作出突出貢獻的企業、部門及個人。同時，對於那些發生環境事件和安全事故的企業、部門及個人，我們將執行處罰措施。

## 持份者溝通



本公司堅信深入了解持份者的意見對於強化ESG管理極為關鍵。基於公司主營業務及經營環境的潛在變化、持份者與公司之間的相互影響力等因素，本集團識別出本公司的關鍵持份者組別。我們已為持份者群體，包括政府及監管機構、股東／投資者、業務夥伴／供應商、同業、客戶、員工、社區及公眾，構建了多元化的溝通渠道。在充分理解持份者對ESG風險和挑戰的關注後，本集團積極響應，制定出具有明確方向的戰略政策。在二零二四年度，本集團與外部持份者進行了112次會談，深入探討合作與發展議題，同時我們也與內部子公司進行了58次深入的調研會議，廣泛聽取內外持份者的意見與建議，為本集團的決策提供了多元化的視角和寶貴的信息。

Stakeholders 持份者	Expectations and Requirements 期望及要求	Issues Concerned 關注議題	Means of Communication and Response 溝通和回應方式
 Government and regulators 政府及監管機構	<ul style="list-style-type: none"><li>Compliance with national policies, laws and regulations 遵守國家政策、法律和法規</li><li>Supporting local economic growth 支持地方經濟增長</li><li>Driving local employment 推動當地就業</li><li>Tax payment in full and on time 足額按時納稅</li><li>Ensuring production safety 確保生產安全</li></ul>	<ul style="list-style-type: none"><li>Environmental compliance 環境合規</li><li>Air pollutant management 空氣污染物管理</li><li>Greenhouse gas emissions 溫室氣體排放</li><li>Energy consumption 能源消耗</li><li>Use of water resources 水資源使用</li><li>Operational compliance 經營合規</li></ul>	<ul style="list-style-type: none"><li>Report of information 信息報送</li><li>Meeting/conference with regulators 與監管機構會面／會議</li><li>Site visit 實地視察</li><li>Examination and supervision 檢查督查</li></ul>
 Shareholders/ Investors 股東／投資者	<ul style="list-style-type: none"><li>Returns 回報</li><li>Compliant operation 遵守營運規定</li><li>Raising corporate value 提高公司價值</li><li>Transparency in information and effective communication 資訊透明度及有效溝通</li></ul>	<ul style="list-style-type: none"><li>Listing compliance 上市合規</li><li>Environmental compliance 環境合規</li><li>Green energy projects 綠色能源項目</li><li>Opportunities in renewable energy 可再生能源商機</li><li>Employment compliance 合規僱傭</li><li>Occupational health and safety 職業健康與安全</li><li>Operational compliance 經營合規</li></ul>	<ul style="list-style-type: none"><li>Annual general meeting and other shareholders meeting 股東週年大會與其他股東大會</li><li>Interim report and annual report 中期報告與年報</li><li>Company announcement 公司公告</li><li>Corporate correspondence such as letter to shareholders/ circular and notice of meeting 企業通訊，如致股東信件／通函及會議通知</li></ul>



Stakeholders 持份者	Expectations and Requirements 期望及要求	Issues Concerned 關注議題	Means of Communication and Response 溝通和回應方式
 <p><b>Shareholders/ Investors</b> 股東／投資者</p>			<ul style="list-style-type: none"> <li>• Visit of shareholders/investors/commercial and non-commercial roadshow 股東／投資者參觀活動／商業和非商業路演</li> <li>• Results release/results conference 業績公佈／業績發佈會</li> <li>• Site visit 實地考察</li> <li>• Meeting with investors 投資者會面</li> <li>• Daily exchange and telephone 日常交流、電話</li> </ul>
 <p><b>Business partners/ Suppliers</b> 業務夥伴／供應商</p>	<ul style="list-style-type: none"> <li>• Operating with integrity 誠信經營</li> <li>• Equal rivalry 公平競爭</li> <li>• Performance of contracts 履行合約</li> <li>• Mutual benefit and win-win result 互惠互利及雙贏結果</li> <li>• Transparency in information and effective communication 資訊透明度及有效溝通</li> <li>• Health and safety 健康及安全</li> </ul>	<ul style="list-style-type: none"> <li>• Opportunities in renewable energy 可再生能源商機</li> <li>• Operational compliance 經營合規</li> <li>• Intellectual property protection 保護知識產權</li> <li>• Research and development 研究及開發</li> <li>• Monitoring of suppliers 供應商把控</li> </ul>	<ul style="list-style-type: none"> <li>• Visit 探訪</li> <li>• Meeting 會議</li> <li>• Face-to-face exchange 面對面交流溝通</li> <li>• Evaluation system on suppliers/contractors 供應商／承辦商評估制度</li> <li>• Site visit 實地視察</li> </ul>
 <p><b>Peers</b> 同業</p>	<ul style="list-style-type: none"> <li>• Establishment of industry standards 建立行業標準</li> <li>• Driving industry development 推動行業發展</li> </ul>	<ul style="list-style-type: none"> <li>• Opportunities in renewable energy 可再生能源</li> </ul>	<ul style="list-style-type: none"> <li>• Strategic cooperation project 商機策略性合作項目</li> <li>• Meeting 會議</li> <li>• Site visit 考察互訪</li> </ul>

Stakeholders 持份者	Expectations and Requirements 期望及要求	Issues Concerned 關注議題	Means of Communication and Response 溝通和回應方式
<div> Employees 僱員</div>	<ul style="list-style-type: none"><li>Occupational health and safety and remuneration and benefits 職業健康和安全薪酬及福利</li><li>Career development 事業發展</li><li>Care for employees 關愛員工</li></ul>	<ul style="list-style-type: none"><li>Employment compliance 合規僱傭</li><li>Employee remuneration and benefits 僱員薪酬及福利</li><li>Employee working hours and rest periods 僱員工作時數及假期</li><li>Diversity and equal opportunities 多元化與平等機會</li><li>Occupational health and safety 職業健康與安全</li><li>Training and education 培訓與教育</li></ul>	<ul style="list-style-type: none"><li>Suggestion box/mail/group discussion/staff intranet 意見箱／郵件／小組討論／員工內聯網</li><li>Evaluation of work performance and meeting/face-to-face meeting 工作表現評核及晤談／會議面談</li><li>Publication (such as staff correspondence) 刊物（如員工通訊）</li><li>Summary report of business 業務簡報</li><li>Volunteer activity 義工活動</li><li>Seminar/workshop/talk 研討會／工作坊／講座</li><li>Staff communication meeting 員工溝通大會</li><li>Staff activity 員工活動</li></ul>
<div> Community and the public 社區及公眾</div>	<ul style="list-style-type: none"><li>Improving community environment 改善社區環境</li><li>Participation in charity 參與慈善活動</li><li>Information transparency 具透明度資訊</li></ul>	<ul style="list-style-type: none"><li>Charity 公益慈善</li><li>Promotion of community development 推動社區發展</li><li>Poverty alleviation 扶貧工作</li></ul>	<ul style="list-style-type: none"><li>Donation 捐獻</li><li>Engagement in community activity 參與社區活動</li><li>Company's website/ Company's announcement/social media platform 公司網站／公司公告／社交媒體平台</li><li>Seminar/workshop/talk 研討會／工作坊／講座</li></ul>

Stakeholders 持份者	Expectations and Requirements 期望及要求	Issues Concerned 關注議題	Means of Communication and Response 溝通和回應方式
 <b>Customers</b> 客戶	<ul style="list-style-type: none"> <li>Reliable energy supply 可靠能源供應</li> <li>Stable energy price 穩定能源價格</li> <li>Low-carbon energy transformation 低碳能源轉型</li> <li>Environmental sustainable management 環境可持續管理</li> </ul>	<ul style="list-style-type: none"> <li>Environmental compliance 環境合規</li> <li>Air pollutant management 空氣污染物管理</li> <li>Green energy projects 綠色能源項目</li> <li>Ecological protection 生態保護</li> <li>Opportunities in renewable energy 可再生能源商機</li> <li>Operational compliance 經營合規</li> </ul>	<ul style="list-style-type: none"> <li>Daily operation/exchange 日常營運／交流</li> <li>Mail box 郵箱</li> <li>Letter 函件</li> </ul>
 <b>Media</b> 傳媒	<ul style="list-style-type: none"> <li>Information transparency 具透明度資訊</li> <li>Fulfilment of social responsibilities 履行社會責任</li> </ul>	<ul style="list-style-type: none"> <li>Environmental compliance 環境合規</li> <li>Ecological protection 生態保護</li> <li>Operational compliance 經營合規</li> <li>Anti-corruption 反貪污</li> </ul>	<ul style="list-style-type: none"> <li>Press release 新聞稿</li> <li>Visit of senior management 高級管理人員訪問</li> <li>Results release 業績公佈</li> </ul>

## MATERIALITY ASSESSMENT

To understand the risks, opportunities and impacts brought to the Group arising from environmental, social and climate-related issues, the Group has undertaken materiality assessment through questionnaire surveys. In the course of assessment, the materiality maps of the industry developed by Morgan Stanley Capital International ("MSCI") and the Sustainability Accounting Standards Board ("SASB"), the benchmark of the industry, the responses of internal and external stakeholders and the concerns of rating agencies about the Company have been taken into consideration. Through assessment, the environmental and social issues that could bring significant impacts to the Group have been identified and classified as material issues. By analysing the results collected from 168 valid questionnaires received, the Group has mapped the material issues in the materiality matrix as a reference for making strategic planning and decisions.

## 重要性評估

為探討各種環境、社會和氣候議題為本集團帶來的挑戰、機遇與影響，本集團基於廣泛的問卷調查進行重要性評估，評估過程中借鑒了摩根士丹利資本國際（「MSCI」）及可持續發展會計準則委員會（「SASB」）開發的行業重要性地圖，結合同行對標，並綜合內外部持份者的反饋及評級機構對公司的關切。通過評估，本集團識別出對集團影響深遠的環境和社會議題，並將其定為重要議題。在分析168份有效問卷後，集團已將這些議題納入重要性矩陣，以指導戰略規劃和決策。



## PROCESS TO DETERMINE MATERIAL ISSUES

## 重要議題判定流程



### Step 1 步驟一

#### Identification of material issues 確定重要議題

Based on the materiality maps of MSCI and SASB and peer benchmarking, we identified a series of sustainability issues relevant to our environmental and social impact and performance of governance, and we prepared questionnaires accordingly for stakeholders.

基於MSCI、SASB重要性地圖及同行對標，我們識別了一系列與環境、社會影響及管治績效有關的可持續發展議題，並就此為持份者編製調查問卷。



### Step 2 步驟二

#### Ranking of material issues 重要議題排序

We invited stakeholders to fill our survey questionnaires, and we prioritised the issues based on scores of the issues given by the stakeholders.

我們邀請持份者參與填寫調查問卷，並綜合持份者對議題的評分作優先排序。



### Step 3 步驟三

#### Verification and establishment of materiality matrix 重要性矩陣的核實及建立

We analysed the feedback and the results of the scores of the questionnaires and took into consideration of the weightings of stakeholders assigned by professionals for forming a two-dimensional representation of the materiality of each issue to stakeholders and to the Group's business. The screening and analysis results were reviewed by our internal management and external experts. 我們梳理問卷反饋和評分結果，結合專家意見決定持份者權重，從而形成每個議題分別對持份者及本集團業務重要性的二維表述。內部管理層與外部專家對篩選與分析結果進行了審核。



### Step 4 步驟四

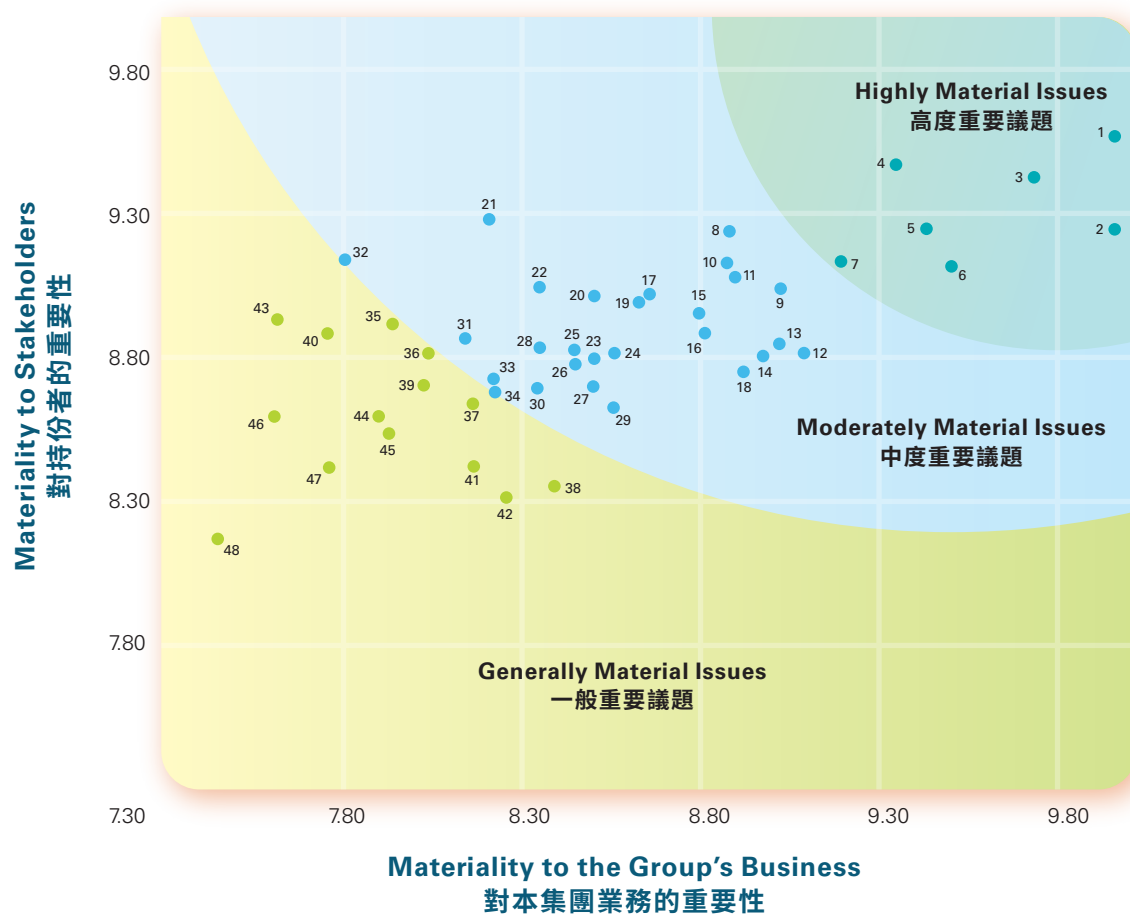
#### Reporting 匯報

Following the review of the material issues that have significant impact, the management will disclose the management policies and relevant data of material issues in the ESG Report. We will also report the findings in the Sustainability Committee and the final results will be confirmed following the approval of relevant resolution by the Board. Regular review of material issues are conducted by collecting feedback from stakeholders to ensure that the issues are consistent with the Group's sustainability strategy.

管理層審閱高影響程度的重要性議題後，於ESG報告內，披露重要議題的管理政策及相關數據。我們亦在可持續發展委員會會議上呈報，經董事對議案進行審批後確認最終結果。透過收集持份者反饋，定期對重要議題進行審閱，以確保該等議題與本集團可持續發展策略保持一致。

## 2024 Materiality Matrix

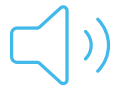
## 二零二四年重要性矩陣





**Highly Material Issues**  
高度重要議題

1. Operational Compliance  
經營合規
2. Anti-Corruption  
反貪污
3. Corporate Risk Management  
企業風險管理
4. Compliance and Information Transparency  
合規、透明信息披露
5. Response to National Strategies  
響應國家戰略
6. Financial Performance and Interests of Investors  
財務表現及投資者利益
7. Ecological Protection  
生態保護



**Moderately Material Issues**  
中度重要議題

8. Occupational Health and Safety  
職業健康與安全
9. Waste Management  
廢棄物管理
10. Green Energy Projects  
綠色能源項目
11. Environmental Compliance  
環境合規
12. Use of Water Resources  
水資源使用
13. Energy Consumption  
能源消耗
14. Anti-Unfair Competition  
反不正當競爭
15. Internal Audit  
內部審計
16. Employee Remuneration and Benefits  
僱員薪酬及福利
17. Employment Compliance  
合規僱傭
18. Opportunities in Renewable Energy  
可再生能源商機
19. Promotion of Community Energy Low-Carbon Transformation  
推動社會能源低碳轉型
20. Employee Promotion Mechanism  
員工晉升機制
21. Quality Management  
質量管理
22. Prevention and Handling of Environmental Incidents  
環境事故預防及處理
23. Employee Working Hours and Rest Periods  
僱員工作時數及假期
24. Response to Climate Change  
應對氣候變化
25. Intellectual Property Protection  
保護知識產權
26. Wastewater Management  
廢水管理
27. Training and Education  
培訓與教育
28. Soil Contamination Management  
土壤污染管理
29. Corporate Culture Construction  
企業文化建設
30. Greenhouse Gas Emissions  
溫室氣體排放
31. Diversity and Equal Opportunities  
多元化與平等機會
32. Research and Development  
研究及開發
33. Customer Privacy Protection  
客戶隱私保護
34. Procurement Practices  
採購常規



**Generally Material Issues**  
一般重要議題

35. Customer Health and Safety  
客戶健康與安全
36. Air Pollutant Management  
空氣污染物管理
37. Cooperation and Development with Peers  
行業合作與進步
38. Prevention of Child Labour and Forced Labour  
防止童工及強制勞工
39. Poverty Alleviation  
扶貧工作
40. Managing Social Risks of Supply Chain  
管理供應鏈的社會風險
41. Customer Service Management  
客戶服務管理
42. Information Security  
資訊安全
43. Managing Environmental Risks of Supply Chain  
管理供應鏈的環境風險
44. Green Office  
綠色辦公室
45. Promotion of Community Development  
推動社區發展
46. Charity  
公益慈善
47. Fleet Emissions Management  
車輛排放管理
48. Use of Raw Materials and Packaging Materials  
原材料及包裝材料使用





Highly Material Issues Identified 已識別的高度重要議題	Related Section(s) 相關章節
Operational Compliance 經營合規	4.7. Upholding Business Ethics and Responsibilities – Operating with Integrity 4.7. 堅守商業道德責任—誠信經營 4.7. Upholding Business Ethics and Responsibilities – Advocating the Spirit of Competition Compliance 4.7. 堅守商業道德責任—倡導合規競爭精神
Anti-Corruption 反貪污	4.7. Upholding Business Ethics and Responsibilities – Anti-Corruption 4.7. 堅守商業道德責任—反貪污
Corporate Risk Management 企業風險管理	4.7. Upholding Business Ethics and Responsibilities – Internal Control and Risk Management 4.7. 堅守商業道德責任—內控與風險管理
Compliance and Information Transparency 合規、透明信息披露	4.4. Stakeholder Communication 4.4. 持份者溝通
Response to National Strategies 響應國家戰略	5.1. Active Response to National Strategies 5.1. 積極呼應國家戰略 5.5. Securing Stable Energy Supply 5.5. 穩定能源供應保障
Financial Performance and Interests of Investors 財務表現及投資者利益	5.2. Diversified Development of Energy Business 5.2. 多元發展能源業務 5.3. Integration into the International Market 5.3. 融合國際市場 5.6. Advocating the Development of Green Finance 5.6. 倡導綠色金融發展
Ecological Protection 生態保護	6.5 Protecting the Natural Ecological Environment 6.5 守護自然生態環境

## CONTRIBUTING TO THE UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS

Considering the characteristics of our business and the results of materiality assessment, we have identified 15 out of the 17 United Nations Sustainable Development Goals (“UN SDGs”) that are the most relevant to our sustainability strategies. The following table shows the responses we take to contribute to such goals. We will continue to align ourselves with the UN SDGs and explore sustainable development opportunities jointly with our stakeholders.

## 貢獻聯合國可持續發展目標

基於業務特點和重要性評估，我們從聯合國十七項可持續發展目標中選定了十五項與我們的可持續發展戰略最為契合的目標，下表展示了我們為實現這些目標所採取的措施。我們將繼續與聯合國目標保持一致，並與持份者探討可持續發展機遇。

UN SDGs 聯合國可持續發展目標	Corresponding Targets and Indicators 對應目標及指標	Our Responses 我們的措施
	<p>1.1 By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than US\$1.15 a day.</p> <p>到二零三零年，消除世界各地的極端貧困，目前的衡量標準為每人每天的生活費不足1.15美元。</p>	<p>Drive local fishermen and farmers' employment opportunities and increase their income through the agriculture-solar and fishery-solar hybrid models.</p> <p>通過實施農光互補和漁光互補的模式，我們促進了當地漁民和農民的就業機會，並提高了他們的收入水平。</p>
	<p>2.1 By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round.</p> <p>到二零三零年，消除飢餓，確保所有人（特別是窮人和弱勢群體，包括嬰兒）全年都有安全、營養和充足的食物。</p>	<p>Take an active part in charity activities for poverty alleviation, helping people pursue a better life.</p> <p>積極參與扶貧慈善活動，幫助人們追求更美好的生活。</p>
	<p>3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.</p> <p>到二零三零年，大幅減少危險化學品以及空氣、水和土壤污染導致的死亡和患病人數。</p>	<p>Carry out programmes on health and safety training, and take necessary measures to ensure the health and safety of employees.</p> <p>實施健康與安全培訓計劃，並採取必要措施保障員工的健康與安全。</p>

UN SDGs 聯合國可持續發展目標	Corresponding Targets and Indicators 對應目標及指標	Our Responses 我們的措施
 <p><b>4 QUALITY EDUCATION</b></p>	<p>4.4 By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship.</p> <p>到二零三零年，大幅增加掌握就業、體面工作和創業所需相關技能，包括技術性和職業性技能的青年和成年人數。</p>	<p>Implement high-quality and comprehensive training projects for employees.</p> <p>實施高質量及全方位的員工培訓項目。</p>
 <p><b>5 GENDER EQUALITY</b></p>	<p>5.1 End all forms of discrimination against all women and girls everywhere.</p> <p>在全球消除對婦女和女童一切形式的歧視。</p> <p>5.5 Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life.</p> <p>確保婦女全面有效參與各級政治、經濟和公共生活的決策，並享有進入以上各級決策領導層的平等機會。</p>	<p>Promote equal employment, realise equal pay for men and women, and protect the legitimate rights and interests of employees.</p> <p>推動就業平等，實現男女同工同酬，維護員工合法權益。</p>
 <p><b>7 AFFORDABLE AND CLEAN ENERGY</b></p>	<p>7.1 By 2030, ensure universal access to affordable, reliable and modern energy services.</p> <p>到二零三零年，確保人人都能獲得負擔得起的、可靠的現代能源服務。</p> <p>7.2 By 2030, increase substantially the share of clean energy in the global energy mix.</p> <p>到二零三零年，大幅增加清潔能源在全球能源結構中的比例。</p>	<p>Deeply tap into the potential of new energy development and keep exploring innovative models for utilisation of clean energy.</p> <p>深入挖掘新能源的增長潛力，持續探索清潔能源的創新應用模式。</p>
 <p><b>8 DECENT WORK AND ECONOMIC GROWTH</b></p>	<p>8.8 Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment.</p> <p>保護勞工權利，推動為所有工人，包括移民工人，特別是女性移民和沒有穩定工作的人創造安全和有保障的工作環境。</p>	<p>Establish a comprehensive employee rights protection mechanism.</p> <p>構建完善的員工權益保障體系。</p> <p>Prohibit the use of child labour and forced labour.</p> <p>禁止使用童工和強迫勞工。</p>



UN SDGs 聯合國可持續發展目標	Corresponding Targets and Indicators 對應目標及指標	Our Responses 我們的措施
<div>9 INDUSTRY, INNOVATION AND INFRASTRUCTURE</div> 	<p>9.b Support domestic technology development, research and innovation in developing countries, including by ensuring a conducive policy environment for, inter alia, industrial diversification and value addition to commodities.</p> <p>支持發展中國家的國內技術開發、研究與創新，包括提供有利的政策環境，以實現工業多樣化，增加商品附加值。</p>	<p>Strive to promote the building of an intelligent energy system and facilitate digital transformation.</p> <p>致力推動智慧能源系統建設，促進數字化轉型。</p>
<div>10 REDUCED INEQUALITIES</div> 	<p>10.4 Adopt policies, especially fiscal, wage and social protection policies, and progressively achieve greater equality.</p> <p>採取政策，特別是財政、薪資和社會保障政策，逐步實現更大的平等。</p>	<p>Protect the human rights of employees and avoid inequality.</p> <p>維護員工人權，避免不平等現象。</p>
<div>11 SUSTAINABLE CITIES AND COMMUNITIES</div> 	<p>11.7 By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities.</p> <p>到二零三零年，向所有人（特別是婦女、兒童、老年人和殘疾人士）普遍提供安全、包容、無障礙、綠色的公共空間。</p>	<p>Help vulnerable groups through voluntary services, environmental protection, poverty alleviation and other activities for public welfare.</p> <p>通過志願服務、環境保護、扶貧和其他公益活動幫助弱勢群體。</p>
<div>12 RESPONSIBLE CONSUMPTION AND PRODUCTION</div> 	<p>12.2 By 2030, achieve the sustainable management and efficient use of natural resources.</p> <p>到二零三零年，實現自然資源的可持續管理和高效利用。</p> <p>12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse.</p> <p>到二零三零年，通過預防、減排、回收和再利用大幅減少廢物的產生。</p>	<p>Use natural resources efficiently.</p> <p>高效利用自然資源。</p> <p>Avoid waste and reduce environmental impact caused by production activities.</p> <p>盡量避免生產活動造成的浪費和減少環境影響。</p>

UN SDGs 聯合國可持續發展目標	Corresponding Targets and Indicators 對應目標及指標	Our Responses 我們的措施
 <p><b>13 CLIMATE ACTION</b></p>	<p>13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries. 加強各國抵禦和適應氣候相關的災害和自然災害的能力。</p> <p>13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning. 加強氣候變化減緩、適應、減少影響和早期預警等方面的教育和宣傳，加強人員和機構在此方面的能力。</p>	<p>Formulate carbon reduction plans and take a series of energy-saving measures to achieve carbon reduction goals. 規劃減碳計劃，實施一系列節能措施，實現減碳目標。</p>
 <p><b>15 LIFE ON LAND</b></p>	<p>15.3 By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world. 到二零三零年，防治荒漠化，恢復退化的土地和土壤，包括受荒漠化、乾旱和洪澇影響的土地，努力建立一個不再出現土地退化的世界。</p>	<p>Conduct environmental impact assessments prior to photovoltaic and wind power projects to avoid or minimise impacts on natural life. 為避免或盡量減少對自然生命的影響，我們會在開展光伏發電和風力發電項目前進行環境影響評估。</p>
 <p><b>16 PEACE, JUSTICE AND STRONG INSTITUTIONS</b></p>	<p>16.5 Substantially reduce corruption and bribery in all their forms. 大幅減少一切形式的腐敗和賄賂行為。</p>	<p>Organise anti-corruption training to raise employee awareness. 組織反腐敗培訓，提高員工意識。</p>
 <p><b>17 PARTNERSHIPS FOR THE GOALS</b></p>	<p>17.17 Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships. 借鑒夥伴關係的經驗和籌資戰略，鼓勵和推動建立有效的公共、公私和民間社會夥伴關係。</p>	<p>Promote win-win cooperation across the entire industry chain and build a responsible supply chain. 推動產業鏈的合作共贏，組建負責任供應鏈。</p>

## UPHOLDING BUSINESS ETHICS AND RESPONSIBILITIES

The Group adheres to high standards of business ethics and implements strict compliance management, which not only effectively prevents the risk of violations and ensures the stable operation of the enterprise, but also lays a solid foundation for sustainable development. The Group all along adheres to good business practices and values, persistently improves the compliance management system, conducts integrity and anti-corruption training, and strictly regulates the behaviours of all employees and partners, and is committed to being a responsible and outstanding corporate citizen while ensuring compliance and transparency in business activities.

### Operating with Integrity

We firmly believe that integrity is a key intangible asset of an enterprise. The Group strives to create a corporate culture based on integrity, thereby promoting the sustainable development of the enterprise. The Group is committed to winning the trust of stakeholders by gaining reputation with integrity and ensuring benefits with quality.

We have established a sound compliance management system and formulated a series of special standards and guidelines such as the Measures for Compliance Management and the Handbook for Compliance Management Culture, so as to standardise the basic moral standards for employees under various management principles of conflicts of interest. The Group has been in strict compliance with local and international laws, and continuously monitored potential dishonesty. The Group's management has also taken the lead in establishing standards and norms to encourage integrity in enterprises, improving the positions, evaluation standards and incentive standards for employees at all levels, and strengthening integrity education in corporate culture. The preparation of various special compliance guidelines reflects our efforts in improving the compliance management system. During the Year, the Group's headquarters revised and issued 1 compliance standard, 6 special compliance guidelines and 168 standards for key areas and key elements, and our branches and subsidiaries revised and issued 12 basic compliance standards, 86 special compliance guidelines and 1,262 standards for key areas and key elements. During the Year, the Group's headquarters, branches and subsidiaries revised and issued a total of 13 basic compliance standards, 92 special compliance guidelines and 1,430 standards for key areas and key elements.

## 堅守商業道德責任

本集團堅守高標準的商業道德準則，實施嚴格的合規管理，這不僅有效防範了違規風險，確保了企業的穩定運營，而且為可持續發展奠定了堅實的基礎。本集團長期恪守良好的商業行為準則和價值觀，持續健全合規管理體系，開展誠信和反貪污培訓，嚴格規範全體僱員及合作夥伴的行為，致力成為負責任的優秀企業公民，確保經營活動之合規與透明。

### 誠信經營

我們深信誠信是企業核心的無形資產。本集團竭力打造以誠信為基礎的企業文化，並以此推動企業的可持續發展。本集團致力於通過誠信贏得聲譽、憑藉質量確保效益，從而贏取持份者之信任。

我們建立了健全的合規管理體系，已制定《合規管理辦法》、《合規管理文化手冊》等一系列專項標準及指引，規範於各種利益衝突管理原則下的僱員基本道德準則，嚴格遵守運營當地及國際法律，並持續監察潛在的不誠信行為。本集團管理層亦牽頭建立鼓勵企業誠信行為的標準規範，完善各級人員的崗位、考核標準及激勵標準，以深化企業文化中的誠信理念教育。各種專項合規指引的編制體現了我們對完善合規管理體系的努力，本年度，本集團總部修訂和發佈合規系列標準1項，合規專項指引6項，支撐重點領域、重點環節標準168項，分子公司修訂和發佈合規基礎標準12項，合規專項指引86項；支撐重點領域、重點環節標準1,262項。本集團總部及分子公司年度修訂和發佈合規基礎標準13項，合規專項指引92項，支撐重點領域和重點環節標準1,430項。



Beginning from this year, we have formulated and approved the annual Compliance Work Plan and actively promoted the effective implementation of substantive compliance management. The annual work plan adheres to the principle of full coverage of compliance management in terms of organisational structure, business areas, management elements and control processes, and focuses on key areas, key stages and key personnel to further facilitate the integration of compliance management into our standards, processes, positions and matrices. We have continuously facilitated the integration of “five-in-one” management, arranged 10 annual compliance management tasks, put forward management requirements, and while optimising the compliance mechanism and system, promoted the effective implementation of special compliance tasks, thereby achieving full horizontal coverage and vertical integration of compliance management.

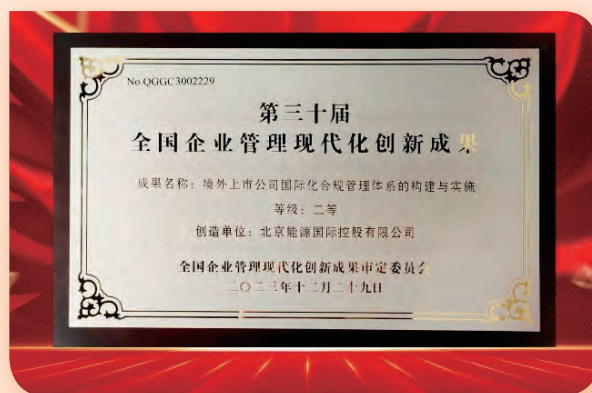
從本年度開始，我們制定並審批年度《合規工作方案》的編制，積極推進實質性合規管理的有效實施，年度工作方案堅持組織機構、業務領域、管理要素、控制過程合規管理全覆蓋的原則，關注重點領域、重點環節、重點人員，進一步推進合規管理入標準、入流程、入崗位、入矩陣。繼續推進「五位一體」管理融合，對年度合規管理10項工作進行佈置，提出管理要求，在優化合規機制體制的同時，推進合規專項工作的有效開展，實現合規管理橫向全覆蓋，縱向全貫通。

**Case:**  
**案例：**

**We were awarded the Second Prize for National Management Modernisation Achievement**  
**榮獲國家級管理現代化成果二等獎**

The Group pays continuous attention to various potential compliance risks and is constantly innovating the construction of compliance mechanism. During the Year, we formulated the Guidelines for the Compliance Management of Overseas Businesses specifically for overseas businesses to ensure the compliance operation of projects. Our project—“Construction and Implementation of International Compliance Management Systems for Overseas Listed Companies”—won the national second prize in the evaluation of the China Enterprise Confederation, reflecting the Group’s leading position in compliance management practices.

本集團持續關注各種潛在的合規風險，孜孜不倦創新合規機制體制建設。本年度我們特別針對境外業務，制定了《境外業務合規管理指引》，確保項目合規運營。我們的《境外上市公司國際化合規管理體系的構建與實施》項目，在中國企業聯合會的評審中獲得國家級二等獎，體現了集團在合規管理實踐上的領先地位。



BJEI was awarded the Second Prize for National Management Modernisation Achievement  
京能國際榮獲國家級管理現代化成果二等獎

## Anti-Corruption

The Group is determined to eliminate irregularities such as bribery and conflict of interests, and has strict requirements on the behaviour of employees. We have formulated the Compliance Code of Conduct, and required all employees to sign a compliance pledge, such that the compliance behaviour of employees are regulated and the compliance management system is optimised. All employees are prohibited from soliciting any advantages from our customers, suppliers or any person in connection with the Group's business. The Group believes that the acceptance of relevant advantages would affect the objectivity of employees in performing their duties, resulting in employees acting against the interests of the Group. Therefore, the Group requires employees to decline advantages offered on any occasion, including gifts such as cash, red packets, shopping cards, checks and marketable securities. If they cannot decline such advantages immediately, they should take the initiative to report to their superiors and hand it over to departmental heads for unitary handling. Meanwhile, the Group has signed the "Statement on Anti-Commercial Bribery" with other cooperative enterprises to further regulate compliance.

Moreover, the Measures for the Management of Compliance Consultation and Reporting have clarified the responsibilities of the legal compliance department, the audit and supervision department and other relevant departments, and provided clear guidelines on the reporting management process.

## 反貪污

本集團堅決杜絕賄賂和利益衝突等違規行為，並對員工的行為規範實施了嚴格的標準。我們已制定《合規行為準則》，並要求全體員工均需簽訂合規承諾書，以規範僱員合規行為，完善合規管理體系。本集團禁止所有僱員向與本集團業務相關的客戶、供應商或任何人士索取任何利益。本集團認為收受相關利益將影響僱員履行職責的客觀，從而導致僱員作出違背本集團利益的行為。因此，本集團要求僱員在任何場合下都應當面謝絕收受相關利益，包括現金、紅包、購物卡、支票及有價證券等禮品；如不能當即謝絕，應主動向上級匯報，並上交予部門負責人統一處理。同時，本集團與其他合作企業簽署《反商業賄賂行為的聲明》，進一步規範合規行為。

此外，我們的《合規諮詢與舉報管理辦法》明確了法律合規部、審計監督部及其他相關部門職責，並提供清晰的舉報管理流程指引。

## Measures for the Management of Compliance Consultation and Reporting

## 《合規諮詢與舉報管理辦法》



The Group encourages all employees to seek guidance from the relevant departments when they are in doubt about any compliance policies, and also supports employees, customers, business partners and other stakeholders in monitoring and reporting violations of compliance management and other related policies. We provide multiple whistleblowing channels for whistleblowers to report in real names or anonymously, including WeChat, email, telephone and visits. The legal compliance department and the audit and supervision department shall be responsible for handling the reported incidents, respect the will of the whistleblower and keep strict confidentiality regarding the identity of the whistleblower and the content of the report. Once the behaviours are ruled as a violation of ethical standards, the employees involved shall be subject to economic and administrative penalties. In serious circumstances, the Group shall consider terminating their employment or reporting to the relevant authorities.

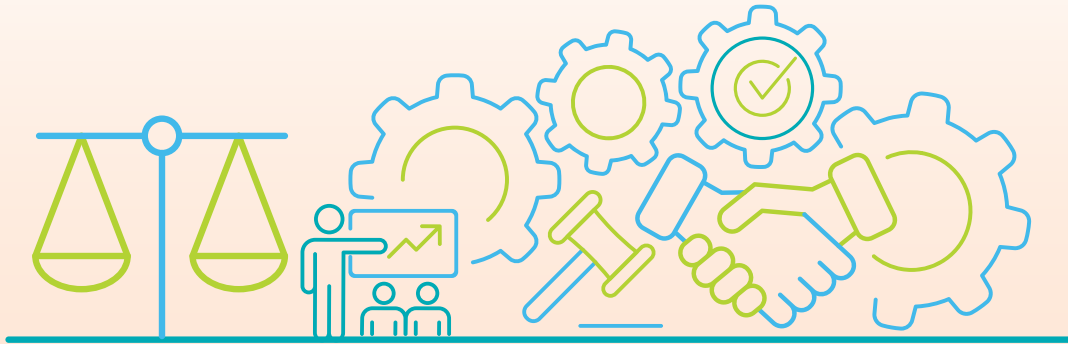
當任何員工在對合規政策有疑問時，本集團鼓勵他們主動向相關部門尋求指導。同時，我們支持員工、客戶、商業夥伴以及其他持份者對違反合規管理及其他相關政策的行為進行監督和舉報。我們開設多條舉報渠道供舉報者進行實名或匿名舉報，包括微信、郵件、電話、簡訊及來訪等。法律合規部與審計監督部將負責處理舉報事件，並尊重舉報者意願，對舉報者和舉報內容進行嚴格保密。若有關行為獲認為違反道德標準，涉事僱員將受到經濟和行政處罰；情況嚴重者，本集團會考慮終止其僱傭關係或向有關機關上報。

We are committed to improving employees' compliance management and integrity awareness through various assessments and training. During the Year, 139 full-time and part-time compliance employees at our headquarters, branches and subsidiaries completed regular compliance examinations. The Group held 10 specialised compliance training sessions for our branches and subsidiaries, and organised 6 specialised system compliance management training sessions. During the Reporting Period, we conducted warning education on duty crimes in combination with typical cases. The theme of this anti-corruption training was to "strengthen ideological defence and observe the bottom line of integrity". The training totalled 576 hours, covering our Directors, senior executives and employees at our headquarters, branches and subsidiaries, with a total of 192 personnel being trained.

我們致力通過各種考核及培訓以提升員工合規管理及誠信廉潔意識。本年度，總部和分子公司有139位合規專兼職人員完成合規定期考試；為分子公司進行合規專題培訓10場；組織系統合規專項管控培訓6場；報告期內我們就職務犯罪結合典型案例進行警示教育，是次反貪培訓以「牢固思想防線，堅守廉潔底線」為主題，培訓時數達576小時，覆蓋董事、公司高管、總部及各分子公司員工，受訓人數共192人。

Case:  
案例：

**Warning education activity in the theme of "Learning from and Clarifying Discipline through Cases"**  
**「以案為鑒、以案明紀」警示教育活動**



During the Year, we strengthened the integrity and self-discipline awareness of our management staff through innovative warning and education activities. For the first time, the Group organised more than 20 senior management and Party branch secretaries of our branches to attend court hearings of state-owned enterprise duty-related crimes, using real court trial cases to clarify discipline, interpret laws and increase their cautiousness.

本年度，我們通過創新的警示教育活動，強化了管理人員的廉潔自律意識。集團首次組織了20餘名領導和分公司黨支部書記等管理人員，親身到法院旁聽國有企業職務犯罪案件的庭審，用真實庭審案例深化以案明紀、以案釋法、以案示警。



**Case:  
案例：****We held the 2024 Legal Compliance Knowledge Contest  
開展二零二四年度法律合規知識競賽**

The Group is committed to innovating learning methods and improving employees' compliance knowledge in a vivid and interesting way. During the Year, we held a legal compliance knowledge contest and training in the theme of "Using Compliance to Prevent and Control Risks and Facilitate Development". The event included a series of specialised training covering, among others, fundamental management, specialised tasks and legal terms. After the training, there was a closed-book examination for evaluating the results, with an aim to urge employees to master their compliance knowledge more proficiently, thereby facilitating the improvement of the Company's compliance.

本集團致力於創新學習方法，通過生動有趣的方式提升員工的合規知識。今年，我們舉辦了以「合規防控風險，助力發展」為主題的法律合規知識競賽和培訓。活動包括系列專題培訓，內容涵蓋基礎管理、專項工作、法律條款等，培訓後更設有閉卷考試評估效果，督促員工更加熟練地掌握合規知識，從而推動公司合規水平的提升。



The 2024 Legal Compliance Knowledge Contest  
二零二四年度法律合規知識競賽

During the Year, the Group strictly complied with the Criminal Law of the People's Republic of China, the Anti-Money Laundering Law of the People's Republic of China, the Supervision Law of the People's Republic of China, the Prevention of Bribery Ordinance and other national laws and regulations related to anti-corruption. The Group was not aware of any violation of laws and regulations that have a significant impact on the Group relating to bribery, extortion, fraud and money laundering, and the Group was not involved in any corruption lawsuits.

於本年度，本集團嚴格遵守《中華人民共和國刑法》、《中華人民共和國反洗錢法》、《中華人民共和國監察法》、《防止賄賂條例》以及其他反貪污相關國家法律及規例。本集團並不知悉任何違反有關賄賂、勒索、欺詐及洗黑錢且對本集團有重大影響的法律及規例的情況，亦無涉及任何貪污訴訟個案。

## Advocating the Spirit of Competition Compliance

We firmly believe that the healthy development of the industry depends on the strict compliance of enterprises with laws and regulations related to anti-monopoly and fair competition, as well as the joint maintenance of fair market order among industry peers. The Group strictly complies with the Company Law of the People's Republic of China, the Anti-Monopoly Law of the People's Republic of China, the Anti-Unfair Competition Law of the People's Republic of China and other applicable laws and regulations to ensure that the Group does not engage in any conduct that may harm the market and fair competition, and is aware that the management should bear the corresponding economic and legal responsibilities.

For a long time, the Group has adhered to the principle of "contract integrity", engaged in competition and strategic cooperation on the premise of complying with national policies and laws, and conscientiously fulfilled agreements and contracts, with an aim to achieve common interests and mutual development for all parties. During the Year, the Group did not have any legal proceedings related to improper competition and anti-monopoly incidents.

## Internal Control and Risk Management

The Group understands that a robust risk management framework and an efficient internal control system are the cornerstones of sustainable development. Therefore, we have formulated rules such as the Measures for Comprehensive Risk Management and the Measures for Internal Audit Management, so as to fully implement the Group's risk management work while upholding the management concept of standardisation, efficiency, integration and innovation, and constantly innovating the construction of the compliance mechanism and system. We have established a sound risk management organisational system, with the Board as the core of strategic decision-making. The Risk Control Committee and the Audit Committee under the Board are responsible for supervising risk management, and the management is responsible for daily operations. The risk management department focuses on the construction, operation and coordination of the risk management system. Each department shall regularly report information on major operational risk incidents, make corresponding rectifications, establish a joint working mechanism, integrate assessment resources and benchmark against compliance management. We also conduct annual compliance risk assessments and risk management assessments to identify, evaluate and analyse major risks for the coming year, and formulate response plans accordingly.

## 倡導合規競爭精神

我們堅信行業的健康發展依賴於企業嚴格遵守反壟斷和公平競爭的相關法律法規，以及行業夥伴共同維護市場秩序的公平性。本集團嚴格遵循《中華人民共和國公司法》、《中華人民共和國反壟斷法》、《中華人民共和國反不正當競爭法》及其他適用的法律及法規，確保本集團不從事有可能損害市場和公平競爭的行為，並知悉管理層應承擔的相應經濟及法律責任。

本集團長期以來始終堅守「誠信訂約」的原則，在遵守國家政策和法律的前提下開展競爭與戰略協作，認真履行協約與合同，以求獲得各方的共同利益和共同發展。於本年度，本集團並無針對不當競爭行為和反壟斷事件的法律訴訟個案。

## 內控與風險管理

本集團明白強健的風險管理框架和高效的內部控制系統是企業持續發展的基石，因此我們制定了《全面風險管理辦法》、《內部審計工作管理辦法》等制度，秉承規範、高效、融合、創新的管理理念，不斷創新合規機制體制建設，全面落實集團風險管理工作。我們已建立完善的風險管理組織體系，由董事會作為戰略決策核心，下設的風險控制委員會與審核委員會監督風險管理，管理層負責日常運作，而風險管理部門則專注於風險管理體系的構建、運行及協調。各部門須定期報送重大經營風險事件信息，並進行相應整改，建立聯動工作機制，整合評估資源，對標合規管理。同時我們亦會開展年度合規風險評估和風險管理評估，識別、評估並分析來年的重大風險，以制定應對方案。

## Organisational Structure for Risk Management

## 風險管理組織體系



The audit and supervision department shall prepare an annual audit plan based on the Company's annual operating goals and work priorities, perform audit on different subsidiaries every year, and require them to rectify the audit issues. Moreover, we have formulated three guidelines, i.e. the Handbook for Internal Control Self-Evaluation, the Handbook for Internal Control Authority and the Handbook for Internal Control Management. The former helps each department and subsidiary in conducting self-examination and evaluation, and the latter supports the management in regularly evaluating the internal control system of the Group as a whole. By continuously optimising the internal control system, we hope to minimise or avoid risks and continuously improve our operations management standards.

審計監督部會依據公司年度經營目標和工作重點編製年度審計計劃，每年對不同子公司進行審計，並要求其整改審計問題。此外，我們制定了《內部控制自我評價手冊》、《內部控制權限手冊》和《內部控制管理手冊》三份指引，前者幫助各部門和子公司進行自我檢查和評價，後者則支持管理層定期評估整個集團的內部控制體系。通過持續完善內部控制體系，我們期盼能最大限度地減少或規避風險，不斷提升經營管理水平。



Navigate with Green Energy and  
**Lead to a Low-Carbon Future**  
綠能領航 助力低碳未來





In terms of advocating the construction of a global ecological civilisation and the protection of biodiversity, our government has put forward a series of important initiatives and propositions, striving to achieve the target of carbon peak and carbon neutrality steadily, while endeavouring to build a modernised society in which human beings coexist harmoniously with nature. Under such mission, we have continuously promoted green and low-carbon transformation, and enhanced the resilience of the energy supply chain and industrial chain.

在倡導全球生態文明建設和生物多樣性保護方面，我們的政府提出了一系列重要倡議和主張，致力於穩步實現碳達峰和碳中和的目標，努力打造一個人類與自然和諧共存的現代化社會。我們亦在這一願景下，持續推動綠色低碳轉型，增強能源供應鏈與產業鏈的彈性。

## ACTIVE RESPONSE TO NATIONAL STRATEGIES

## 積極呼應國家戰略

### KPIs:

### 關鍵績效指標：



Number of clean energy power plants (including associates):

清潔能源發電站數量 (包括聯營公司)：

**169**

solar power plants,  
個太陽能電站、

**41**

wind power plants,  
個風力發電站、

**28**

hydro power plants and  
個水力發電站及

**3**

energy storage power stations.  
個儲能電站。

Facing the challenges arising from climate change, our government has set the target of reaching carbon peak by 2030 and achieving carbon neutrality by 2060, and has placed the response to climate change as a key strategy for China's economic and social development. Under such strategy, clean energy is the key driving force for accelerating our pace of reaching carbon peak and achieving carbon neutrality. China's "14<sup>th</sup> Five-Year Plan" has also emphasised the transformation to green and low-carbon energy and the construction of a new energy system. "Being clean, low-carbon, safe and efficient" is the core of a modern energy system and a fundamental requirement for the modernisation of an energy system. As a major participant in the field of clean energy in China, we have been continuously improving the quality of clean energy development and enriching the diversified layout of our business. Our target is to achieve an aggregate installed capacity of more than 15GW by the end of the "14<sup>th</sup> Five-Year Plan".

面對氣候變化的挑戰，我國政府設定了二零三零年前碳達峰、二零六零年前碳中和的目標，將應對氣候變化作為國家經濟社會發展的關鍵戰略。在這一戰略中，清潔能源是推動我們快速邁向碳達峰和碳中和的關鍵動力。而國家的「十四五」規劃亦強調了能源的綠色低碳轉型和新能源體系的構建，「清潔低碳、安全高效」現時不但成為現代能源體系的核心，更是能源現代化的基本要求。我們作為中國清潔能源領域的重要參與者，持續提升清潔能源的發展質量，拓展業務的多元化。我們的目標是在「十四五」規劃結束前，實現超過15吉瓦的總裝機容量。

In 2024, on the basis of the “14<sup>th</sup> Five-Year Plan” and along the primary objectives of “focusing on the main business, driven by diverse elements, achieving lean management and securing innovation and efficiency”, we continuously promoted the large-scale development of clean energy by embracing the integrated business layout as supported by the “dual-circle, one-centre and one-focus” development path. Through independent development and merger and acquisition strategies, the Group has actively expanded the coverage of the solar and wind power generation business. At present, our solar and wind power plants have covered 28 provinces in China.

The Group firmly believes that the further transformation of renewable and clean energy is the key to tackling climate change. In our decision regarding the strategic development, construction and acquisition of power plants, we take into consideration of a combination of key factors including, among others, solar irradiation, wind velocity, water resources, feed-in tariffs, government subsidies, conditions for grid connection, electricity transmission infrastructure and demand for electricity, so as to ensure that the expected minimum rate of return is achieved. During the Year, we continued to build 30 new energy projects (including the projects that had not yet been completed last year), with an aggregate installed capacity of approximately 4,257MW and an aggregate grid-connected installed capacity of approximately 3,583MW. At the same time, there were 35 newly-built new (clean) energy projects, with an aggregate installed capacity of approximately 1,449MW and an aggregate grid-connected installed capacity of approximately 576MW. Looking forward to 2025, we plan to start 10 new projects, with an expected aggregate installed capacity of approximately 612MW. This will further consolidate our leading position in the field of clean energy.

## DIVERSIFIED DEVELOPMENT OF ENERGY BUSINESS

We focus on deepening our core business while actively expanding our diversified industrial layout. With wind and photovoltaic power as our main business, we plan out and develop key business segments such as hydro power, energy storage solutions, integrated energy solutions, gas turbines and green hydrogen energy.

二零二四年，我們圍繞「十四五」發展規劃，以「聚焦主業、多元驅動、精益管理、創新創效」為主線，依托「雙環線、一中心、一聚焦」發展路徑整合業務佈局，持續推動清潔能源的規模化發展。通過自主開發和併購策略，本集團積極擴大太陽能 and 風力發電業務的版圖。目前，我們的太陽能和風力發電站已經覆蓋中國28個省份。

本集團堅信深化可再生清潔能源的轉型是應對氣候變化的關鍵。在策略性地開發、建設和收購電站的同時，我們綜合評估光照、風速、水資源、上網電價、政府補貼、併網條件、輸電基礎設施和電力需求等關鍵因素，以確保達到預期的最低回報率。今年，我們繼續建設了30個新能源項目（包括去年未完成的項目），總裝機容量約為4,257兆瓦，總併網裝機容量約為3,583兆瓦。同時，新建了35個新（清潔）能源項目，總裝機容量約為1,449兆瓦，總併網裝機容量約為576兆瓦。展望2025年，我們計劃新開工10個項目，預計總裝機容量將約為612兆瓦，這將進一步鞏固我們在清潔能源領域的領導地位。

## 多元發展能源業務

我們專注於核心業務的深耕，同時積極拓展多元化的產業佈局。以風光為主業，佈局和發展水電、儲能解決方案、綜合能源解決方案、燃機以及綠色氫能等關鍵業務板塊。

## Wind and Photovoltaic Power

### 風光能源業務



The Group is determined to bolster the “dual-circle, one-centre and one-focus” strategic layout. In 2024, we implemented a number of distributed wind and photovoltaic power projects in Tongliao in Inner Mongolia, Pudong New Area in Shanghai, Nanchang in Jiangxi and other regions. The agriculture-solar and fishery-solar hybrid projects in Zhaoqing in Guangdong and Yichun in Jiangxi were also put into operation one after another.

本集團堅定地推進「雙環線、一中心、一聚焦」的戰略佈局。二零二四年，我們在內蒙古通遼、上海浦東新區、江西南昌、等地區，實施多個分佈式光伏和風電項目，廣東肇慶、江西宜春的農光、漁光互補項目也相繼投產。



The 24MW distributed photovoltaic power project in the industrial park in Longyang District, Baoshan, Yunnan  
雲南保山隆陽區產業園24兆瓦分佈式光伏項目

## Hydro Power

### 水電業務



The Group is actively expanding its hydro power business. In 2024, the Company successfully acquired 952.44MW of hydro power assets by increasing its capital in and securing control of Baoshan Energy, marking a breakthrough from scratch in the field of hydro power. In the future, we will actively facilitate the merger and acquisitions of different hydro power projects to further consolidate and expand our hydro power business.

本集團正積極拓展水電業務。二零二四年，公司通過增資控股保山能源，成功獲取了952.44兆瓦的水電資產，標誌著我們在水電領域實現了從無到有的突破。未來我們將積極推進不同水電項目的併購事宜，進一步鞏固和擴展水電業務。



The Baoshan Energy Hydro Power Plant project in Yunnan  
雲南保山能源水電站項目

## Gas Turbines

### 燃機業務

The Group continuously works hard to expand the coverage of its gas turbine power generation business. In 2024, we made every effort to facilitate the construction of the 2x120MWh gas turbine project in Yangxi, Guangdong. We have also increased our capital in and secured control of, and are currently constructing the 2x75MWh gas turbine project in Jiangmen, Guangdong. We will continue to focus on developing in areas with abundant natural gas resources and superior power consumption conditions.

本集團持續努力擴大燃機發電業務版圖。二零二四年，我們全力推進廣東陽西的2x120兆瓦時燃機項目工程建設，同時我們已增資控股並正在建設廣東江門的2x75兆瓦時燃機項目。我們將持續專注開發天然氣資源豐富、電力消納條件優越的地區。



The combined cooling, heat and power (CCHP) generation project in Yangxi, Yangjiang, Guangdong  
廣東陽江陽西熱冷電聯產項目

## Green Hydrogen

### 綠氫業務

The Group is committed to promoting the transformation of energy structure and achieving the efficient utilisation and innovative development of clean energy by accelerating the progress of the Xuangang 500MW wind and photovoltaic hydrogen production demonstration project, the Duolun 500MW wind and photovoltaic hydrogen/ammonia production project and the Tongliao 2,380MW wind power curtailment for green hydrogen production project.

## Integrated Energy

### 綜合能源業務

The Group is accelerating the pace of establishing the layout of its energy storage business. In 2024, we completed the first phase of the "Technology Agriculture + Smart Energy" industrial and financial project in Daxingzhuang, Pinggu, Beijing, as well as the commissioning of two provincial energy storage demonstration projects in Rongcheng in Shandong and Baise in Guangxi, thereby actively exploring a new model for energy storage as an independent market entity to participate in grid ancillary services and spot trading.

本集團正加快儲能業務佈局的步伐。二零二四年，我們已完成北京平谷大興莊「科技農業+智慧能源」產融項目一期，以及山東榮成及廣西百色這兩個省級儲能示範項目的投產工作，積極探索儲能作為獨立市場主體參與電網輔助服務和現貨交易的新模式。



The shared energy storage project in Rongcheng, Shandong  
山東榮成共享儲能項目

本集團致力於推動能源結構的轉型，通過加快宣鋼500兆瓦風光製氫示範項目、多倫500兆瓦風光製氫氨一體化項目以及通遼238萬千瓦風電棄電制綠氫項目的進度，實現清潔能源的高效利用和創新開發。





## INTEGRATION INTO THE INTERNATIONAL MARKET

Under the guidance of the “14<sup>th</sup> Five-Year Plan”, we are committed to deeply participating in global energy transformation and promoting low-carbon cooperation. We focus on technological innovation and strengthen cooperation with the international community to address the challenges of global climate change. The Group has remained vigilant to the changes in international relations while actively expanding the new energy market in Australia and other RCEP countries, and establishing a key regional layout in the field of clean energy. In 2024, we paid visits to countries such as Japan, Germany and Spain to actively explore global renewable energy opportunities. Through research and exchanges, we hope to promote new energy investment and financial cooperation, and work with partners in overseas markets to facilitate global low-carbon energy transformation.

## 融合國際市場

在「十四五」發展規劃的指引下，我們致力於全球能源轉型的深度參與和低碳合作的推動。我們通過聚焦科技創新，加強與國際社會的合作，以應對全球氣候變化的挑戰。集團對國際關係變化保持敏銳關注，積極開拓包括澳洲在內的RCEP國家新能源市場，同時在清潔能源領域構建重點區域佈局。二零二四年，我們訪問日本、德國、西班牙等國，積極探索全球可再生能源機遇。通過調研交流，我們期望推進新能源投資和金融合作，與海外市場的合作夥伴共同推動全球低碳能源轉型。

### Case: 案例：

### We signed the China-Japan Green Energy International Supply Cooperation Framework Agreement with our strategic partner 與戰略夥伴簽署《中日綠色能源國際供應合作框架協議》

In 2024, we were invited to participate in the “17<sup>th</sup> China-Japan Energy Conservation and Environmental Protection Forum” jointly organised by the Chinese and Japanese governments and the Japan-China Economic Association, and signed the China-Japan Green Energy International Supply Cooperation Framework Agreement with ORIX (China) Industrial Holdings Co., Ltd. to facilitate in-depth cooperation between the two parties in clean energy construction projects at home and abroad, and in other fields of renewable energy such as green hydrogen energy, with an aim to share our resources and complement each other's strengths.

二零二四年，我們受邀參加由中日政府和日中經濟協會共同舉辦的「第十七屆中日節能環保綜合論壇」，並與歐力士（中國）實業控股有限公司簽署《中日綠色能源國際供應合作框架協議》，促進雙方在境內外清潔能源建設項目、綠色氫能等可再生能源領域的深度合作，旨在資源共享、優勢互補。

We signed the cooperation agreement with ORIX (China) Industrial Holdings Co., Ltd.  
與歐力士（中國）實業控股有限公司  
簽署合作協議



**Case:  
案例：**

**Milestone in overseas photovoltaic business – Our project in Wollar, Australia was successfully connected to the grid**

**海外光伏里程碑－澳大利亞沃拉項目併網成功**

Our 346MW photovoltaic project in Wollar, Australia was successfully connected to the grid for power generation and is expected to generate approximately 550 million kWh of clean electricity per year upon grid connection. Including the assets acquired earlier, the aggregate installed capacity of our five projects in Australia has reached 945.4MW, indicating that BJEI is becoming a leader of Chinese companies in the field of clean energy overseas.

澳大利亞沃拉34.6萬千瓦光伏項目成功併網發電，項目併網後，預計每年可發清潔電量約5.5億千瓦時。包括早期收購的資產在內，我們在澳大利亞的五個項目總裝機容量已達到945.4兆瓦，標誌著京能國際正成為海外清潔能源領域的中資企業領航者。



**Case:  
案例：**

**Committed to becoming a driver of international green energy transformation – Our Moorabool Wind Power Project in Australia**

**致力成為國際綠能轉型驅動者－澳大利亞Moorabool風電項目**

The Moorabool Wind Farm is a landmark project of the Company in promoting international green energy transformation. Located in Victoria, Australia, the farm consists of 104 wind turbines and has an aggregate installed capacity of up to 312MW. The farm generates approximately 1.05 million MWh of clean electricity each year, which is capable of meeting the annual electricity needs of approximately 228,000 households, accounting for 10% of the total number of households in Victoria. This project has demonstrated the Company's leadership and contribution as a promoter of global green energy transformation in facilitating energy transformation and environmental sustainability, and further consolidated our leading position in the international field of green energy.

Moorabool風力發電場是公司在推動國際綠色能源轉型中的一項標誌性項目，坐落於澳大利亞維多利亞州，由104颱風力渦輪機構成，擁有高達312兆瓦的總裝機容量。該發電場每年約產生105萬兆瓦時的清潔電力，足以滿足約22.8萬戶家庭的年用電需求，佔維多利亞州家庭總數的10%。此項目彰顯了公司作為全球綠色能源轉型的推動者，其在促進能源轉型和環境可持續方面的領導力和貢獻，進一步鞏固了我們在國際綠色能源領域的領導地位。



## BUILDING A REGIONAL DEVELOPMENT PLATFORM

To help realise the grand blueprint of building a modern energy system in the “14<sup>th</sup> Five-Year Plan”, the Group has spared no effort in improving regional energy standards. For areas with extremely challenging construction conditions such as the desert areas of Inner Mongolia and the high-altitude areas of Xizang, we have overcome the difficulties and continued to persistently facilitate the development of clean energy bases. Our wind and solar power generation projects have not only taken root in Tongliao in Inner Mongolia, Pudong in Shanghai and Nanchang in Jiangxi, but also injected new vitality into local economic development under the premise of ecological protection. Moreover, we have kept up with energy development trends and integrated the development of the energy storage business, especially in the Yangtze River Delta region with a developed economy and strong energy demand, to carry out our integrated energy business encompassing the “energy storage +” model.

## 搭建區域發展平台

為助力實現「十四五」規劃中構建現代能源體系的宏偉藍圖，本集團在提升區域能源水平上不遺餘力。面對內蒙古荒漠地帶和西藏高海拔地區等建設條件極具挑戰的地區，我們克服困難，持續堅定地推動清潔能源基地的發展。我們的風能和太陽能發電項目不僅在內蒙古通遼、上海浦東、江西南昌等地落地生根，而且在生態保護的前提下，為當地經濟發展注入了新的活力。此外，我們緊跟能源發展趨勢，結合儲能業務的發展，特別在經濟發達、能源需求旺盛的長三角地區圍繞「儲能+」模式開展綜合能源業務。

### Case: 案例：

**We achieved a breakthrough from scratch in the “energy storage +” integrated energy business in the Yangtze River Delta region**  
**長三角地區「儲能+」綜合能源業務「零」的突破**

The Company successfully won the bid for the State Grid’s integrated energy project for mass entrepreneurship and innovation in Guangling District, Yangzhou, Jiangsu, injecting new impetus into the Yangtze River Delta business and the development of energy storage. The project provides a comprehensive solution including photovoltaic power, energy storage, cooling and heating and green electricity by comprehensively analysing the energy consumption characteristics of the park and the needs of customers. The project is expected to generate 2,780MWh of green electricity each year, saving 853 tons of standard coal and reducing carbon dioxide emissions by 2,668 tons, thereby building a zero-carbon smart park.

本公司成功中標江蘇揚州廣陵區國網雙創綜合能源項目，為長三角業務和儲能發展注入新動力。項目通過綜合分析園區用能特性和客戶需求，提供包括光伏、儲能、供冷供熱、綠電在內的全面解決方案。項目預計年產278萬千瓦時綠色電能，節約標煤853噸，減少二氧化碳排放2,668噸，助力打造零碳智慧園區。

State Grid’s integrated energy project for mass entrepreneurship and innovation in Guangling District, Yangzhou, Jiangsu

江蘇揚州廣陵區國網雙創綜合能源項目



Case:  
案例：

**We obtained construction quota for the 1,000MW wind power project in Guizhou Province**

**獲得貴州省100萬千瓦風電項目建設指標**

We obtained new energy project quota for the first time in Guizhou Province, covering 11 wind power projects in places such as Danxia and Laochang in Panzhou, with an aggregate installed capacity of 1,000MW, achieving a major breakthrough in the Company's new energy industry layout. These wind power projects will provide a stable supply of green energy for Guizhou Province, and their construction and operation will also create local employment opportunities and facilitate the development of related industry chains.

我們在貴州省首次取得新能源項目指標，涵蓋盤州市丹霞、老廠等11個風電項目，總裝機規模100萬千瓦，實現了公司新能源產業佈局的重大突破。這些風電項目將為貴州省提供穩定的綠色能源供應，其建設和運營亦將為當地創造就業機會，促進相關產業鏈的發展。



Our 1,000MW wind power project in Guizhou Province  
貴州省100萬千瓦風電項目



**Case:  
案例：****Our 2,380MW wind power project has been connected to the grid for power generation, facilitating the green transformation of the Gobi Desert  
238萬千瓦風電項目並網發電助力戈壁荒漠的綠色轉型**

Overcoming challenges such as regional span and harsh climate, we successfully built the Tongliao 2,380MW wind power base project and fully connected it to the grid for power generation. It is expected to generate 7.5 billion kWh of clean electricity per year, thereby facilitating the desert to transform into a green energy oasis. As the first large-scale wind power base project of the Company, the Tongliao wind power base project has not only improved the ecological environment protection and green industry development of Tongliao City, but also facilitated local economic development.

我們克服區域跨度和惡劣氣候等挑戰，成功建設通遼238萬千瓦風電基地項目並全面並網發電，預計年產清潔電力75億千瓦時，助力荒漠朝綠色能源綠洲的過渡轉型。作為本公司首個大型風電基地項目，通遼風電基地項目不僅提升通遼市的生態環境保護和綠色產業發展，也促進地方經濟發展。



Our 2,380MW wind power project in Tongliao

通遼238萬千瓦風電項目

## SECURING STABLE ENERGY SUPPLY

In October 2023, the National Development and Reform Commission and the National Energy Administration issued the Guiding Opinions on Strengthening the Stability of Power Systems under the New Situation, pointing out that it is necessary to accelerate the construction of clean, secure, economical and intelligent new power systems, and that the work of strengthening network security protection of the power industry and the stability of power systems should be regarded as one of the priorities. In September 2024, the National Energy Administration further issued the Notice on Improving the Network Security Capabilities of New Energy and New Grid-Connected Entities to Serve the High-Quality Development of New Power Systems, emphasising the security management of new energy, energy storage and smart grids to ensure the security and stability of power systems.

In response to the state's requirements for strengthening the stability of power systems, the Group has taken a series of measures to strengthen energy security and stability:

- In accordance with the Measures for Safety Inspection Management, we comprehensively review our safety management and formulate inspection plans. At present, 12 projects have completed safety inspection, thereby improving the management standard of the power plants of our branches and subsidiaries.
- We attach great importance to preventive maintenance. In particular, we conduct quarterly equipment inspection for our photovoltaic area, including electrical heating parts, preventive experiments, protection device setting verification, SVG and inverter dust cleaning, box transformer inspection, etc.
- Through special investigations, we comprehensively review and verify the rectification of issues, objectively grasp the actual situation of production safety, and identify and address safety management issues. In critical areas such as key infrastructure, staff deployment, risk control, hazard management, infrastructure construction and wind turbine hoisting, 533 issues have been identified and rectified.

## 穩定能源供應保障

二零二三年十月，國家發展改革委和國家能源局發佈《關於加強新形勢下電力系統穩定工作的指導意見》，指出須加快構建清潔、安全、經濟、智能的新型電力系統，視加強電力行業網絡安全防護和電力系統穩定為工作重點之一。二零二四年九月，國家能源局進一步發佈《關於提升新能源和新型併網主體涉網安全能力服務新型電力系統高質量發展的通知》，強調新能源、儲能和智能電網的安全管理，確保電力系統安全穩定。

為響應國家對加強電力系統穩定工作的要求，本集團採取一系列措施來加強能源安全與穩定：

- 依據《安全巡查管理辦法》，全面審查安全管理，並制定檢查計劃。目前，12個項目已完成安全檢查，提升了分支及子公司電站的管理水平。
- 重視預防性維護，特別對光伏區設備進行季度檢查，包括電氣發熱部位、預防性實驗、保護裝置定值核對、SVG和逆變器清灰、箱變檢查等。
- 通過專項調查，全面審查並核實問題整改，客觀掌握安全生產實況，發現並解決安全管理問題。在關鍵基礎設施、人員配置、風險控制、隱患管理、基礎建設、風機吊裝等重點領域，發現並整改533項問題。

- Every year, 14 hot spot detection drones are used to inspect power plants to eliminate fire hazards, identify inefficient components in advance and increase power generation volume. The types of problems include, among others, hot spots, broken glass and junction box failures, all of which are repaired or replaced in a timely manner.

These measures have ensured the stability of power plant operation and the security of energy supply, guaranteed the continuity of energy production, and provided a solid foundation for social and economic development and environmental protection.

## ADVOCATING THE DEVELOPMENT OF GREEN FINANCE

Under the general trend of sustainable development, the Group has seized the important opportunities of green finance. By issuing green financial products, we provide diversified financial support for the Company's environmental protection and social responsibility projects. In 2024, we not only issued green financial products such as REITs and perpetual bonds, but also published the Sustainable Financing Framework for the first time to regulate the issuance of green, social and sustainable bonds and loans, ensuring that the funds raised would be used in a responsible manner to promote sustainable development. This is not only our important milestone in the field of green finance, but also demonstrates our commitment to transparency and responsibility and our firm support for the green transformation of global economy.

- 每年運用14架熱斑檢測無人機檢查電站，消除火災隱患，提前識別低效組件，提高發電量。問題類型包括熱斑、玻璃破碎、接線盒故障等，均及時維修或更換。

這些措施確保了電站運行的穩定性和能源供應的安全性，保障了能源生產的連續性，為社會經濟發展和環境保護提供了堅實基礎。

## 倡導綠色金融發展

在可持續發展的大趨勢下，本集團緊抓綠色金融的重要機遇，通過發行綠色金融產品，我們為公司的環保和社會責任項目提供多樣化的資金支持。二零二四年，我們不但發行REITs產品、永續債券等綠色金融產品，更首次發佈《可持續融資框架》，以規範綠色、社會和可持續債券及貸款的發行，保證籌集的資金將以負責任的方式用於推動可持續發展。這不僅是我們在綠色金融領域的重要里程碑，更彰顯我們對透明度和責任的承諾，堅定支持全球經濟綠色轉型。

### Case: 案例：

### We successfully issued the sustainability-linked Panda perpetual bonds 成功發行可持續掛鉤熊貓永續債

During the Year, we successfully issued the fourth and fifth tranches of the interbank Panda perpetual bonds, which were widely received by investors, and the subscription multiple of the fifth tranche was as high as 74 times. The issuance of perpetual bonds has not only provided financial support for the Company's business development, but also facilitated the Company in continuously integrating ESG concepts into business development.

本年度，我們成功發行第四期及第五期銀行間熊貓永續債，廣受投資者歡迎，當中第五期債券全場認購倍數高達74倍。永續債的發行不但為公司的業務發展提供資金支持，更有助於推動公司持續將ESG理念融入業務發展。

Case:  
案例：

**We successfully issued the fourth tranche of the carbon neutrality green product for supply chain finance**  
**成功發行第四期碳中和綠色供應鏈金融產品**

During the Year, we successfully issued the fourth tranche of our carbon neutrality green asset-backed special scheme for supply chain finance, with a subscription multiple of 2.1 times, setting a new historical low for the price of the Company's publicly issued bond products. It has not only enabled a further reduction in the Company's financing costs, but also expedited the Company's progress in green finance.

本年度，我們供應鏈金融第四期碳中和綠色資產支持專項計劃成功發行，全場認購倍數2.1倍，再創本公司公開發行債券產品價格歷史新低，不僅實現了公司融資成本的進一步降低，同時推動公司綠色金融實踐進程。

Looking ahead, we will continue to innovate green financial products, expand our financing channels, strive to introduce high-quality assets, actively participate in the investment and construction of clean energy projects at home and abroad, promote the low-carbon transformation of global energy structure, and work with our partners to create a green and sustainable future together.

展望未來，我們將持續創新綠色金融產品，拓寬融資渠道，致力於引入優質資產，積極參與國內外清潔能源項目的投資與建設，推動全球能源結構的低碳轉型，攜手夥伴共創綠色可持續的明天。



# Facilitate Sustainable Green Development and **Seek Harmonious Coexistence with the Nature**

綠水長流 自然和諧共生



The Group is committed to becoming “a leader in energy conservation and environmental protection, a model of ecological governance, and a pioneer in achieving the goals of carbon peak and neutrality”. We insist on integrating the concept of green development into the entire process from project site selection, design and construction to operation. The Group has continuously optimised the environmental protection management system, implemented the ecological environmental protection responsibility list, and enhanced the capability for preventing and controlling environmental protection risks.

本集團致力成為「節能環保的領跑者、生態治理的典範、實現雙碳目標的先鋒」。我們堅持將綠色發展理念貫穿於項目選址、設計及施工到運營的全過程。本集團不斷完善環境保護管理體系，落實生態環境保護責任清單，提高環境保護風險防控能力。

#### KPIs:

#### 關鍵績效指標：

During the Reporting Period, our energy intensity was  
於報告期間內，能源強度為

**5.89** MWh per GWh electricity generated.  
兆瓦時／吉瓦時發電量。

Number of trees planted up to the Reporting Period:  
直至報告期間所植樹木數量：

**2,207**

During the Reporting Period,

於報告期間內，所產生有害廢棄物的

**89.29%** of the hazardous waste generated had  
been recycled or handed over to qualified  
suppliers for disposal.

已回收利用或交由符合資格供應商處理。

## OPTIMISING THE ENVIRONMENTAL MANAGEMENT SYSTEM

We strictly comply with laws and regulations such as the Environmental Protection Law of the People's Republic of China, the Solid Waste Pollution Prevention and Control Law of the People's Republic of China, the Law of the People's Republic of China on Environmental Impact Assessment, the Law of the People's Republic of China on Water and Soil Conservation and the Regulations on the Administration of Construction Project Environmental Protection. The Group adheres to the principles of prioritising protection first, focusing on prevention, making comprehensive management, highlighting key points, and implementing comprehensive control. Internally, we have promulgated policies including the Measures for Environmental Protection Management and the Guidelines for the Technical Supervision of Environmental Protection to regulate the responsibilities and scope of technical supervision of environmental protection covering the period of project construction and the period of electricity production and operation.

## 完善環境管理體系

我們嚴格遵守《中華人民共和國環境保護法》、《中華人民共和國固體廢物污染環境防治法》、《中華人民共和國環境影響評價法》、《中華人民共和國水土保持法》、《建設項目環境保護管理條例》等。本集團秉持保護優先、預防為主、全面管理、突出重點、綜合治理的原則，發佈內部的《環境保護管理辦法》方針，以及《環境保護技術監督導則》方針，以規範監管項目建設期及電力生產經營期環境保護技術監督的職責及範圍。

## Response to Environmental Emergencies

To avoid or minimise potential environmental risks, we, based on the Measures for the Management of Production Safety Emergency, require our branches and subsidiaries to carry out regular troubleshooting of environmental protection hazards in light of the actual situation for appropriately responding to environmental emergencies. At the same time, our branches and subsidiaries should prepare contingency plans and carry out drills on environmental protection emergencies for enhancing the comprehensive capability of our staff in dealing with environmental emergencies, while striving to minimise and avoid the occurrence of environmental pollution emergencies.

## 突發環境事件響應

為預防或減輕潛在的環境風險，我們根據《安全生產應急管理辦法》，要求下屬分、子公司結合實際情況，定期開展環保隱患排查工作，妥善應對環境應急事件。同時分、子公司亦須編製應急計劃及進行環境保護應急演練，旨在提升從業人員對突發環境事件的綜合能力，致力減少和預防突發環境污染事故的發生。

### Case: 案例：

#### Annual environmental drill of the Beijing Energy Damao Aodu Photovoltaic Power Plant 京能達茂傲都光伏電站年度環境演習

During the Year, the Beijing Energy Damao Aodu Photovoltaic Power Plant organised a comprehensive environmental emergency drill to improve its capability in responding to environmental emergencies. The drill not only covered the emergency response process for environmental pollution incidents, but also included training for enhancing employees' environmental awareness and practical drills on emergency response skills. By simulating real environmental pollution scenarios, employees were able to learn and master the response strategies in practice.

本年度，京能達茂傲都光伏電站為了提升應對突發環境事件的能力，組織開展全面的環保應急演練。此次演練不僅涵蓋了環境污染事件的應急響應流程，還包括了對員工環保意識的強化培訓以及應急處理技能的實戰演練。通過模擬真實的環境污染場景，員工們能夠在實踐中學習和掌握應對策略。

Moreover, our branches and subsidiaries also carry out publicity and professional training on a regular basis. For example, our power plants prepare annual environmental protection training plans. Through on-site teaching, online learning, case sharing and other methods, we provide lectures and training on topics such as basic environmental protection knowledge, environmental laws and regulations and emission standards, in order to enhance employees' awareness of environmental protection and improve their environmental protection operation skills in their daily work, thereby reducing adverse impacts on the environment.

另外分、子公司亦會定期開展宣傳和專業培訓，例如我們的電站編製年度環保培訓計劃，透過現場實地教學、在線學習、案例分享等方式，就環境保護基礎知識，環保法律法規及排放標準等課題進行授課培訓，以提高員工的環境保護意識，並提升員工在日常工作中的環保操作技能，減少對環境的不良影響。



Management and Tracking of Environmental Targets

Attaching great importance to environmental protection, we incorporate the environmental protection tasks of our affiliates into our annual environmental targets and sign the Letter of Target Responsibility with our branches and subsidiaries every year.

環境目標管理追蹤

我們高度重視環境保護，將聯屬公司的環保工作納入年度環境目標，並每年與下屬分、子公司簽訂目標責任書。

Organisational Structure of Environmental Targets Management

環境目標管理組織結構

The Group 本集團	The Group implements the management, formulation and supervision of environmental protection targets, and signs the Letter of Target Responsibility with its branches and subsidiaries every year. 本集團落實管理、制定及監督環境保護目標，並每年與下屬分、子公司簽訂目標責任書。
Branches and subsidiaries 下屬分、子公司	The branches and subsidiaries are responsible for environmental protection and are required to control all pollutants, and their principal responsible persons are fully responsible for environmental protection. 下屬分、子公司負責環境保護，需要控制所有污染物，彼等主要負責人將全面負責環境保護。
Environmental management department and personnel of branches and subsidiaries 下屬分、子公司的環境管理部及人員	The branches and subsidiaries shall establish an environmental protection management system consisting of the enterprise's principal responsible person, the deputy leaders, each department and each team, in order to implement centralised management and division of responsibilities among departments to carry out comprehensive environmental protection management in the whole process. 下屬分、子公司建立由企業的主要負責人、副領導、各部門及各小組組成的環境保護管理體系，實行集中管理、部門分工，全方位、全過程開展環境保護管理。

During the Year, we formulated the Group's environmental targets and stipulated strict requirements in four areas, namely emissions, energy utilisation efficiency, water utilisation efficiency and waste. Through concerted efforts, we have fully achieved all environmental targets.

本年度，我們已制定本集團的環境目標，對排放、能源使用效益、用水效益及廢棄物四個方面作出嚴格要求。經過共同的努力，我們已全面完成所有環境目標。



Key Area 關鍵領域	Environmental Targets 環境目標	Accomplishment of Targets 目標完成情況
<b>Emissions 排放</b>	No ecological environment damage incidents, and no excessive discharge of pollutants 不發生生態環境破壞事件，不發生污染物超標安排	Achieved 已完成
<b>Energy utilisation efficiency 能源使用效益</b>	Strengthening the management of electricity consumption and energy saving of our plants to ensure that the average annual comprehensive electricity consumption rate of our plants is below 1.8% 加強廠用電和節能管理，確保年平均綜合廠用電率低於1.8%	Achieved (In 2024, the comprehensive electricity consumption rate of our plants was 1.58%) 已完成 (二零二四年公司綜合廠用電率為1.58%)
<b>Water utilisation efficiency 用水效益</b>	Strengthening the publicity of water-saving measures and prohibiting waste of water 加強節水措施宣傳，杜絕水浪費	Achieved 已完成
<b>Waste 廢棄物</b>	The management of solid waste (including hazardous waste) complies with the relevant provisions of national and local regulations 固體廢棄物(含有害廢棄物)管理符合國家及地方法規相關規定	Achieved 已完成

## Strict Environmental Management

The Group's environmental management system is a systematic and structured management process designed to ensure that the impact of our business activities on the environment is minimised and to continuously improve our environmental performance. The management representative is responsible for coordinating the daily implementation of such system, with assistance from departments such as the engineering management department and the production safety department. The Group signs the Letter of Safety and Environmental Protection Target Responsibility with its branches and subsidiaries every year to fully implement the principal responsibility for environmental protection and to ensure that the environmental management system is strictly enforced. The Measures for Project Construction Safety Management have standardised the monitoring and measurement of environmental management system implementation at construction sites.

We have formulated the Measures for Environmental Protection Management and the Guidelines for the Technical Supervision of Environmental Protection to standardise and expedite the improvement of the Group's standard system and meet the requirements of national standards and international advanced standards. The Measures for Environmental Protection Management helps us in implementing comprehensive and systematic environmental protection management, establishing the "Three Simultaneities"<sup>1</sup> management system for construction projects, and standardising the acceptance inspection regarding environmental protection, the construction of major environmental protection governance projects and the environmental protection management during the production process. The Guidelines for the Technical Supervision of Environmental Protection clearly defines the scope of technical supervision of environmental protection, the content and methods of environmental protection monitoring, and the technical management and assessment indicators of environmental protection supervision.

<sup>1</sup> The pollution prevention and control facilities in a construction project shall be designed, built and put into operation together with the principal part of the project.

## 嚴格把控環境管理

本集團的環境管理體系是一個系統化、結構化的管理過程，旨在確保我們的業務活動對環境的影響最小化，並持續提升環境績效。這一體系的日常運作由管理層代表負責協調，工程管理事業部及安全生產部等部門則負責提供協助。本集團每年與下屬分、子公司簽訂《安全環保目標責任書》，全面落實環保主體責任，確保環境管理體系嚴格執行。《工程安全施工管理辦法》則規範項目施工現場的環境管理體系運行的監視和測量。

我們已制定《環境保護管理辦法》和《環境保護技術監督導則》，旨在規範並加快本集團標準體系的完善，適應國家標準和國際先進標準的需要。《環境保護管理辦法》有助於我們實行環境保護全面化、系統化管理，建立建設項目三同時<sup>1</sup>管理體制，規範竣工環保驗收、重大環保治理項目建設、以及生產過程環境保護管理。《環境保護技術監督導則》明確界定環境保護技術監督的範圍、環保監測的內容和方法、環保監督的技術管理和考核指標。

<sup>1</sup> 建設項目中防治污染的設施，應當與主體工程同時設計、同時施工、同時投產使用。

## Air Emission Management

The air emissions of the Group mainly involve emissions of sulphur oxide, nitrogen oxide and particulate matter generated by fuel consumption of vehicles in the course of operations. The Group mainly operates photovoltaic and wind power generation, which are new types of clean energy that are green and environmentally friendly and do not involve the use of fuel, thus do not emit any hazardous gases in the electricity generation process, with no radiation, noise and pollution. We strictly comply with the Atmospheric Pollution Prevention and Control Law of the People's Republic of China, the Emission Standard of Air Pollutants for Thermal Power Plants, the Emission Standard of Air Pollutants for Stationary Gas Turbines and other local standards, and did not violate any laws and regulations that have a significant impact on the Group regarding air and greenhouse gas emissions. To control vehicle exhaust emissions, the Group has formulated the Measures for Vehicle Management to clarify the equipment standards for company vehicles, including the volume of air emissions, properly regulate the work regarding vehicle management and improve vehicle utilisation. During the Year, the Group's sulphur oxide, nitrogen oxide and particulate matter emissions were approximately 2.9kg, 684.2kg and 55.3kg, respectively. These emissions have no significant impact on our business operation and the environment. In the future, the Group will continuously promote emission reduction measures to effectively manage and reduce air emissions for ensuring that the emission target is met.

## 廢氣排放管理

本集團的廢氣排放主要涉及營運過程中車輛燃油消耗產生的硫氧化物、氮氧化物及顆粒物排放。由於本集團業務以運營光伏及風力發電—綠色環保的新型清潔能源為主，不涉及燃料的使用，故於發電過程中不會排放任何有害氣體，無輻射、無噪音、無污染。我們嚴格遵守《中華人民共和國大氣污染防治法》、《火電廠大氣污染物排放標準》、《固定式燃氣輪機大氣污染物排放標準》及其他地方標準，且並無違反有關廢氣及溫室氣體排放並對本集團有重大影響的法律法規。為控制車輛廢氣排放，本集團制定《車輛管理辦法》，明確包括排氣量在內的公司用車配備標準，妥善規範車輛管理工作，提高車輛利用率。於本年度，本集團產生的硫氧化物、氮氧化物及顆粒物排放量分別約為2.9公斤、684.2公斤及55.3公斤。該等排放量對我們的業務營運及環境影響並不重大。展望未來，集團將持續推進減排措施，以有效管理並減少廢氣排放，確保達成排放控制目標。

### Air Emissions in 2024

#### 二零二四年廢氣排放量

Sulphur oxide (kg) 硫氧化物 (公斤)	2.9
Nitrogen oxide (kg) 氮氧化物 (公斤)	684.2
Particulate matter (kg) 顆粒物 (公斤)	55.3

## Wastewater Management

We attach great importance to wastewater compliance management and comprehensive utilisation, and strictly comply with the Law of the People's Republic of China on Prevention and Control of Water Pollution, the Integrated Discharge Standard of Wastewater, the Integrated Discharge Standard of Water Pollutants and other provisions of local standards, and did not violate any laws and regulations that have a significant impact on the Group regarding discharges into water and land. To achieve the target of 100% compliance with wastewater discharge standards, the Group has established the environmental protection technical supervision system and set up environmental protection technical supervision positions to supervise wastewater indicators such as the concentration of pollutants at the outlet of industrial wastewater treatment facilities, wastewater treatment rate, wastewater reuse rate and treated water volume.

The wastewater discharged by the Group consists of domestic and production sewage and is discharged to the municipal sewage treatment pipeline network in the end. The domestic sewage is mainly from toilet water used in offices and construction sites, while the production sewage mainly consists of the water used for cleaning of solar panels and the water discharged from the accident oil tank of main transformer at power plants.

To treat sewage effectively, our power plants have set up sewage treatment facilities to ensure that toilet sewage has to go through sedimentation in septic tanks before discharging into the municipal sewage pipeline. Domestic sewage will be used for watering in our power plants after being treated by integrated equipment, or will be entrusted to qualified service providers for regular sewage removal. At the same time, our power plants are also equipped with an accident oil tank with oil-water separation function to store the main transformer oil in case of accidents. Once a transformer accident occurs, the oily sewage is discharged into the accident oil tank. After oil-water separation, the wastewater will enter the rainwater pipeline network, and the waste oil in the tank will be promptly removed by professional institutions. During the Year, our total volume of wastewater discharged was 53,297.95 tons.

## 廢水管理

我們重視廢水合規管理和綜合利用，嚴格遵守《中華人民共和國水污染防治法》、《污水綜合排放標準》、《水污染物綜合排放標準》及其他地方標準規定，且並無違反有關向水及土地排放並對本集團有重大影響的法律法規。為實現100%遵守廢水排放標準的目標，本集團建立環境保護技術監督體系並設立環境保護技術監督崗位，以對工業廢水處理設施出口污染物濃度、廢水處理率、廢水再利用率、經處理水量等廢水指標進行監督。

本集團排放的廢水包括生活污水及生產污水，廢水排放的最終地點為市政污水處理管網。生活污水主要來自辦公室及建築工地的廁所用，而生產污水主要源自清潔太陽能電池板用水以及電站主變壓器事故油池排水。

為有效處理污水，確保廁所污水經過化糞池的沉澱才可進入市政污水管道，電站已裝設污水處理設施，生活污水經一體化設備處理後用於站內灑水，或委託合資格服務供應商定期清運污水。同時，站內亦設有帶油水分離功能事故油池，用於存放事故狀態下的主變壓器排油，一旦發生變壓器事故時，含油污水排入事故油池，經油水分離後廢水進入雨水管網，池內廢油由專業機構及時清運。於本年度，我們排放的廢水總量為53,297.95噸。



Wastewater	2024	2023
廢水	二零二四年	二零二三年
Wastewater discharge (Tons)		
廢水排放量(噸)	53,297.95	77,069.45
Emission intensity (Tons per GWh electricity generated)		
排放強度(噸／吉瓦時發電量)	2.74	5.59

## Solid Waste Management

We strictly comply with the Law of the People's Republic of China on Prevention and Control of Environmental Pollution by Solid Waste, the Standard for Pollution Control on Hazardous Waste Storage, the Technical Specifications for Collection, Storage and Transportation of Hazardous Waste, the Standard for Pollution Control on Non-Hazardous Industrial Solid Waste Storage and Landfill and other relevant regulations, and did not violate any laws and regulations that have a significant impact on the Group regarding generation of hazardous and non-hazardous waste.

The Group attaches high importance to the management of waste and adheres to the principle of "reduction, recycling and harmlessness" to build up a systematic approach for waste management and waste reduction targets achievement. We implement waste sorting in our office area and also organise training sessions to explain the classification of recyclables and guide employees on how to reduce waste, aiming to enhance employees' awareness of resource conservation. All hazardous waste is clearly labelled and stored separately according to different categories in accordance with the National Catalogue of Hazardous Wastes, and the accounts of hazardous waste and solid waste are regularly updated. We have also assigned a dedicated department to check the storage of waste weekly to ensure that there is no pollution to the surrounding environment. We have signed hazardous waste safe disposal entrustment agreements with qualified third parties to handle hazardous waste such as waste batteries and waste mineral oil, ensuring that hazardous waste can be disposed of in accordance with the law. Moreover, we also invite internal and external experts to conduct hazardous waste management training covering storage, transfer, identification and pollution control, and conduct hazardous waste emergency disposal exercises for power plant employees to improve their professional skills and enhance their environmental awareness.

## 固體廢棄物管理

我們嚴格遵守《中華人民共和國固體廢物污染環境防治法》、《危險廢物貯存污染控制標準》、《危險廢物收集、貯存、運輸技術規範》、《一般工業固體廢物貯存和填埋污染控制標準》及其他相關規例，且並無違反有關產生有害及無害廢物並對本集團有重大影響的法律法規。

本集團高度重視對廢棄物的管理，我們以「減量、回收利用、無害」為原則，建立廢棄物管理及達致減廢目標的系統方法。我們於我們辦公區實施垃圾分類，亦會舉辦培訓，講解回收物分類，指導員工如何減少廢棄物，旨在提升員工資源節約意識。而所有有害廢棄物均按照《國家危險廢物名錄》明確標示，按不同類別分開存放，並定期更新有害廢棄物及固定廢棄物賬目。為防止對周邊環境造成污染，我們亦指派專責部門每週核查廢棄物存放情況。我們與合資格第三方簽訂危險廢物安全處置委託協議，處理廢蓄電池及廢礦物油等有害廢棄物，確保危險廢物可得到依法合規的處置。另外，我們亦邀請內外部專家進行有害廢棄物管理培訓，涵蓋儲存、轉移、識別及污染控制，並開展車站員工有害廢棄物應急處置演習，提升其專業技能，增強環保意識。

## Waste Management Principle of the Group

## 本集團廢棄物管理原則



### Reduction and Recycling 減量及回收利用

- Actively facilitate the construction of the “tapping and saving resources” project.  
積極推進「開源節流」項目建設
- Preferentially repair and recycle waste to minimise the discharge of hazardous wastes.  
對廢棄物優先進行維修再利用，最大限度減少有害廢棄物的排放
- Require manufacturers to recycle the waste related to power plants as much as possible.  
要求製造商盡可能回收與發電站有關的廢棄物



### Harmlessness 無害

- Sign cleaning and transportation contracts with qualified third parties.  
與有資質的第三方簽訂清運合同
- For wastes that cannot be repaired, reused or recycled and have no use value, the Group collects them and appoints qualified waste collection experts to carry out harmless treatment, in order to eliminate the impact on the surrounding environment.  
對於不可修復或重複使用或回收的無利用價值的廢棄物，本集團先將其進行收集，再委聘合資格的廢棄物收集專家對其進行無害化處理，消除對周邊環境的影響

**Case:  
案例：****We carried out activities in the theme of “Let’s Take Action to Sort Garbage and Lead a Green Life”****開展「垃圾分類齊行動，綠色生活我先行」主題活動**

To integrate green, low-carbon and environmental protection concepts into our daily operations, we started out with garbage sorting to organise theme-based activities, including garbage sorting training, explanation of relevant laws and regulations and disposal guidelines, and the “Guarding the Bin” activity at our headquarters and some subsidiaries. Our employees actively participated in the activities, distributed promotional materials to the public and colleagues, patiently guided about the sorting methods, and popularised garbage sorting knowledge.

為將綠色、低碳、環保理念融入日常運營，我們從垃圾分類著手，開展主題活動，活動涵蓋垃圾分類培訓，講解相關法律法規及投放指引，以及在總部和部分子公司開展「桶前值守」活動。員工積極參與，向群眾和同事發放宣傳資料，耐心指導分類方法，普及垃圾分類知識。



The Group’s staff actively participated in the “Guarding the Bin” activity  
本集團員工積極參與「桶前值守」活動

Moreover, we are also concerned about the potential environmental issues caused by discarded solar panels. We are actively exploring the possibility of reusing waste components, which not only can reduce the demand for new materials, but also further reduce the impact on the environment. During the Year, we collected a total of approximately 146.48 tons of discarded solar panels.

此外，我們亦關注廢棄太陽能組件帶來的潛在環境問題。我們正在積極探索廢舊組件的重用可能性，這不僅能夠減少新材料的需求，還能進一步降低對環境的影響。本年度，我們收集的報廢太陽能電池板共約146.48噸。

Case:  
案例：

**Project on the reuse of components as canopies for box transformers at Guangxi Guigang Power Plant**

**廣西貴港電站組件利舊箱變遮陽棚項目**

At Guangxi Guigang Power Plant, we used discarded components from the plant itself and the Heyuan Power Plant to carry out the project on the technological transformation of canopies for box transformers of photovoltaic power plant for quality enhancement and efficiency improvement, with an aim to provide sunshade and cooling effect for box transformers, reduce equipment failure and increase in energy consumption caused by high temperature, and use solar energy to generate electricity, thereby improving the overall efficiency and production capacity of the power plant. In 2023 and 2024, a total of 43 box transformer canopies were built, reusing 2,064 components with a capacity of 567.6kWp.

廣西貴港電站利用項目自身及河源電站的廢棄組件，開展光伏電站箱式變壓器（「箱變」）遮陽棚技術改造提質增效項目，旨在為箱變提供遮陽降溫的效果，減少因高溫引起的設備故障和能耗增加，同時利用太陽能進行發電，提高電站的整體效率和產能。二零二三及二零二四年共建設箱變遮陽棚43個，利舊組件2,064塊，容量達567.6kWp。

Project on the reuse of components as canopies for box transformers at Guangxi Guigang Power Plant  
廣西貴港電站組件利舊箱變遮陽棚項目



During the Year, the Group generated approximately 0.64 tons of hazardous waste, including waste cartridges and waste lamps. A total of 0.58 tons of hazardous waste was recycled, with a recycling rate of approximately 89.29%. The Group also generated approximately 9.14 tons of non-hazardous waste, including office paper. During the Year, on average, approximately 0.47kg of non-hazardous waste and approximately 0.03kg of hazardous waste, respectively, were generated per GWh electricity generated.

於本年度，本集團共產生約0.64噸的有害廢棄物，當中包括廢墨水匣及廢燈管，共0.58噸有害廢棄物回收利用，回收率達約89.29%；另產生約9.14噸無害廢棄物，當中包括辦公室用紙。於本年度，平均每吉瓦時發電量分別產生約0.47公斤無害廢棄物及約0.03公斤有害廢棄物。



Year 年度	2024 二零二四年	2023 二零二三年
Hazardous waste generated (Tons) 有害廢棄物產生量 (噸)	0.64	0.079 <sup>2</sup>
Recyclable hazardous waste (Tons) 可回收有害廢棄物 (噸)	0.58	0.069
Non-recyclable hazardous waste (Tons) 不可回收有害廢棄物 (噸)	0.07	0.010
Hazardous waste intensity (kg per GWh electricity generated) 產生有害廢棄物強度 (公斤／吉瓦時發電量)	0.03	0.006
Non-hazardous waste generated (Tons) 無害廢棄物產生量 (噸)	9.14	15.51
Recyclable non-hazardous waste (Tons) 可回收無害廢棄物 (噸)	0.90	0.04
Non-recyclable non-hazardous waste (Tons) 不可回收無害廢棄物 (噸)	8.24	15.47
Non-hazardous waste intensity (kg per GWh electricity generated) 產生無害廢棄物強度 (公斤／吉瓦時發電量)	0.47	1.13

<sup>2</sup> Starting from 2024, hazardous waste generated includes waste cartridges and waste lamps, and the data on solar panel placement is no longer included in the hazardous waste generated. In order to align the scope of data disclosure, the data of 2023 has also been adjusted accordingly.

<sup>2</sup> 由二零二四年度開始，有害廢棄物產生量包括廢墨盒及廢燈管，太陽能板置放數據不再包括於有害廢棄物產生量中。為統一數據披露範圍，二零二三年數據也進行了相應調整。

## ADDRESSING CLIMATE CHANGE RISKS

Under the present challenges brought by global climate change, the Group is committed to fulfilling its corporate social responsibility and actively addressing the impact of climate change. From 2022, we began to identify, evaluate and analyse climate change-related risks and opportunities that may have an impact on our operations, with reference to the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD), so as to understand the potential impact on the Group's financial condition and take corresponding proactive measures.

### Governance

The Group firmly integrates the concept of green development into the Company's business and operations and is committed to achieving sustainable development. We not only regard addressing climate change as part of our corporate responsibility, but also as an important driver for innovation and growth. Under the leadership of the Board, the Sustainability Committee of the Board is responsible for reviewing the Company's climate change-related work, including the implementation of climate change-related response strategies and measures, to ensure that the impact of related risks on the Company's business development can be effectively mitigated, while reducing the impact of climate change in the process of the Company's business development.

### Strategies

The Group, embracing the corporate mission of "enabling better energy at fingertips", is committed to continuously making further efforts in driving the development with innovation in the energy sector, and accelerating the construction of a clean energy industrial ecosystem dominated by green energy, complemented by multiple energy sources and characterised by smart collaboration, thereby contributing to the transformation of global energy development and the response to climate change.

## 應對氣候變化風險

在當前全球面臨的氣候變遷挑戰中，本集團致力履行企業的社會責任，積極應對氣候變化帶來的影響。自2022年起，我們開始參考氣候相關財務信息披露工作組（「TCFD」）的建議，對可能影響我們運營的氣候變化相關風險和機遇進行識別、評估及分析，了解其對本集團財務狀況的潛在影響，並積極採取各種應對措施。

### 治理

本集團堅定將綠色發展理念融入到公司的業務和運營中，致力於實現可持續發展。我們不僅將應對氣候變化作為企業責任的一部分，而且將其視為推動創新和增長的重要驅動力。在董事會的領導下，董事會下設的可持續發展委員會負責檢討本公司氣候變化相關工作，包括氣候變化相關應對策略與措施的執行，以確保有效降低相關風險對本公司業務發展的影響，同時減少本公司業務發展過程中產生對氣候變化的影響。

### 戰略

本集團懷抱著「讓美好能源觸手可及」的企業使命，致力在能源領域持續深耕創新驅動，加快構築綠色為主、多能互補、智慧協同的清潔能源產業生態體系，為世界能源發展轉型和應對氣候變化貢獻力量。

In response to the international issue of global climate change, the Group has taken a series of strategic measures. We have fully considered the risks and opportunities brought about by climate change and integrated them into the Group's development strategy. We have expanded our diversified energy layout, not only continuing to promote renewable energy projects such as wind power, solar photovoltaic power and hydro power generation, but also actively exploring the development opportunities of the green hydrogen business and participating in green certificate trading to actively reduce our carbon footprints. At the same time, we have developed green financial products, directed more funds to green industries through innovative methods, and facilitated the low-carbon transformation of the global energy structure. In our operations, we have adhered to green management, improved our energy efficiency and reduced our emissions, and have been committed to achieving low-carbon development. Through these measures, the Group has not only achieved economic success, but also played an active role in addressing global climate change.

In 2024, we continuously advanced our work on the identification, analysis and assessment of climate-related risks and opportunities, and assessed physical risks and transition risks to understand their impact on the Group, thereby providing a reference for the Group's overall strategy and risk response decisions to optimise resource allocation. This will help our business better adapt to future climate change and ensure the long-term sustainable development of the Group.

## Risk Management

We actively identify and update the climate-related risks and opportunities faced by the Company, and formulate and gradually adopt corresponding measures.

為應對全球氣候變化這一全球性議題時，本集團採取一系列戰略性措施。我們充分考慮氣候變化帶來的風險與機遇，並將其融入到集團的發展戰略中。我們拓展多元能源佈局，不僅持續推進風力發電、太陽能光伏發電、水力發電等可再生能源項目，還積極探索綠氫業務的發展機會和參與綠證交易，積極減少碳足跡。同時，我們發展綠色金融產品，通過創新的方式引導更多資金流向綠色產業，助力全球能源結構的低碳轉型。在運營中，我們堅持綠色管理，提高能效，減少排放，致力於實現低碳發展。通過這些措施，本集團不僅在經濟上取得了成功，而且在全球氣候變化的應對中發揮了積極作用。


二零二四年度，我們持續推進氣候相關風險與機遇的識別、分析和評估工作，對實體風險和轉型風險進行評估，了解它們對本集團產生的影響，為本集團的整體策略及風險應對決策提供參考，以優化資源配置。這有助於我們的業務更好地適應未來的氣候變化，確保本集團的長期可持續發展。

## 風險管理

我們積極識別並更新公司面臨的氣候風險和機遇，制定和逐步採取應對舉措。


Type of Risk	Details of Risk	Time Frame	Potential Impact on Business, Strategy and Finance	Countermeasures
風險類型	風險內容	時間範圍	潛在業務、戰略和財務影響	應對措施
Physical risks 實體風險	 Floods, cyclones 洪水、氣旋	Short-term 短期	<ul style="list-style-type: none"><li>In severe weather, employees' commute, supply chains and power plant equipment and facilities may be affected by typhoons or other extreme weather events, and damage to equipment and facilities may cause power supply interruptions, resulting in additional maintenance costs and possible business suspension.</li></ul> <p>在惡劣天氣下，員工通勤、供應鏈、電站設備設施可能受到颱風或其他極端天氣影響，設備設施損壞或會導致電力供應中斷，因而產生額外的維修費用，並可能導致業務暫停。</p>	<ul style="list-style-type: none"><li>BJEI requires all subsidiaries and branches to implement contingency plans based on their own circumstances, and continue to improve the contingency plans in the future, so as to ensure the production safety of employees and stable power supply in extreme weather. 京能國際要求各子分公司結合自身情況，執行應急預案，未來亦將持續完善應急預案，保障極端天氣下員工生產安全及電力供應穩定。</li></ul>
			<ul style="list-style-type: none"><li>Extreme weather events may have a significant impact on critical factors of clean energy generation, including, among others, solar irradiance, rainfall, wind velocity, risks and wind load changes, which may lead to reduced power generation efficiency and unstable power generation volume.</li></ul> <p>極端天氣事件可能會對清潔能源發電的關鍵因素產生顯著影響，包括日照量、降雨量、風速、風險、風載荷變化等，可能導致發電效率下降、發電量不穩定等。</p>	<ul style="list-style-type: none"><li>We regularly carry out equipment inspection and maintenance procedures to ensure that facilities are in good condition. For key equipment and structures that may be affected by extreme weather, we take reinforcement measures to enhance their ability to resist natural disasters, thereby reducing potential failure risks.</li></ul> <p>定期執行設備檢查和維護程序，確保設施處於良好狀態，對於可能受極端天氣影響的關鍵設備和結構，採取加固措施，以增強其抵禦自然災害的能力，從而減少潛在的故障風險。</p>



Type of Risk	Details of Risk	Time Frame	Potential Impact on Business, Strategy and Finance	Countermeasures
風險類型	風險內容	時間範圍	潛在業務、戰略和財務影響	應對措施
Physical risks 實體風險	 <p>Extreme high temperature 極端高溫</p>	Long-term 長期	<ul style="list-style-type: none"> <li>Frequent high temperatures in summer further increase the Group's energy consumption, reduce its operational efficiency, and increase the probability of power supply abnormalities and fire accidents. 夏季高溫天氣多發，會進一步加劇本集團能源消耗，降低運行效率，提高供電異常、火災事故的概率。</li> <li>Extreme high temperatures may also threaten the health and safety of employees and increase the risk of illness. 極端高溫還可能威脅到員工的身體健康和 safety，增加員工患病風險。</li> </ul>	<ul style="list-style-type: none"> <li>We conduct close inspections during high temperature weather and improve the supporting facilities to ensure the safety of production and operation. 在高溫天氣密切開展巡視工作，並完善配套設施，保障生產運營安全。</li> <li>We have formulated the Regulations on the Management of Occupational Disease Prevention and Control, which have set out our measures for the occupational health management of employees in case of extreme high temperature events for protecting employees' health. 我們制定《職業病防治管理規定》，當中規範包括發生極端高溫事件時，我們對於員工的職業健康管理的措施，保護員工的身體健康。</li> </ul>

Type of Risk Details of Risk Time Frame			Potential Impact on Business, Strategy and Finance	Countermeasures
風險類型	風險內容	時間範圍	潛在業務、戰略和財務影響	應對措施
Transition risks 轉型風險	<div></div> <div>Policy and regulatory risk 政策及法規風險</div>	Long-term 長期	<ul style="list-style-type: none"><li>The government is continuously promulgating stricter carbon emission-related policies and regulations, such as the 14<sup>th</sup> Five-Year Comprehensive Work Plan for Energy Conservation and Emission Reduction and the Action Plan for Peaking Carbon Emission by 2030. In order to meet the increasingly stringent policy requirements, it is necessary to continuously pay attention and adapt to the tightening of relevant laws and regulations, which will increase the Group's data monitoring and disclosure costs and bring compliance risks to us in terms of relevant information disclosure.</li></ul> <p>政府正在不斷出台更嚴格的碳排放相關政策法規，如：《「十四五」節能減排綜合工作方案》及《2030年前碳達峰行動方案》，為滿足日益嚴格的政策要求，需要持續關注並適應各項相關法律法規收緊，將增加本集團的數據監測，披露成本，為我們帶來相關信息披露的合規風險。</p>	<ul style="list-style-type: none"><li>We regularly monitor existing and emerging climate-related trends, policies and regulations in China and other operating locations to address possible regulatory risks.</li></ul> <p>定期監測與氣候相關的中國及其他經營地點現有和新出現的趨勢、政策和法規以應對可能的法規風險。</p>

Type of Risk	Details of Risk	Time Frame	Potential Impact on Business, Strategy and Finance	Countermeasures
風險類型	風險內容	時間範圍	潛在業務、戰略和財務影響	應對措施
<b>Transition risks</b> <b>轉型風險</b>	 Policy and regulatory risk 政策及法規風險	Long-term 長期	<ul style="list-style-type: none"> <li>The reform of the electric power industry and the tightening of the government's land use policy may have a significant impact on project planning and development, especially in terms of obtaining land resources and complying with stricter industry management regulations.</li> </ul> <p>電力行業的改革和政府對土地使用政策的收緊可能會對項目規劃和開發產生顯著影響，特別是在獲取土地資源和遵守更嚴格的行業管理規定方面。</p>	<ul style="list-style-type: none"> <li>We optimise resource utilisation, implement energy-saving measures, adopt clean technologies and promote sustainable practices to minimise compliance costs.</li> </ul> <p>優化資源利用，實施節能措施，採用清潔技術並推廣可持續實踐，以最大限度地降低合規成本。</p>
			<ul style="list-style-type: none"> <li>As society pays increasing attention to environmental protection and sustainable development, the environmental performance of enterprises has become the focus of attention of customers and investors.</li> </ul> <p>隨著社會對環保和可持續發展的日益關注，企業的環境表現已成為客戶和投資者關注的重點。</p>	<ul style="list-style-type: none"> <li>We closely monitor the public's opinion of the Company and the Group's reputation.</li> </ul> <p>密切監察公眾對企業的評價及集團聲譽。</p>
<b>Transition risks</b> <b>轉型風險</b>	 Reputation risk 聲譽風險	Medium-term 中期	<ul style="list-style-type: none"> <li>The performance of enterprises in carbon emission management and other aspects directly affects the evaluation of enterprises by customers and the public. If effective actions are not taken, the reputation of enterprises will be damaged.</li> </ul> <p>企業在碳排放管理等方面的表現直接影響到客戶和公眾對企業的評價，若未採取有效行動企業聲譽受損。</p>	<ul style="list-style-type: none"> <li>We strictly comply with national and industry laws and regulations on carbon emissions, closely monitor our carbon emissions and make active response.</li> </ul> <p>嚴格遵守國家和行業有關碳排放的法律法規，密切監控自身碳排放並積極應對。</p>

Type of Risk	Details of Risk	Time Frame	Potential Impact on Business, Strategy and Finance	Countermeasures
風險類型	風險內容	時間範圍	潛在業務、戰略和財務影響	應對措施
Transition risks 轉型風險	<div><p>Market risk 市場風險</p></div> <div>Medium-term 中期</div>		<ul style="list-style-type: none"><li>Along with the advancement and call of national energy structure reform, many central enterprises have responded to the call to join the new energy industry. At the same time, the market has higher requirements for the power generation efficiency and power generation costs of new energy projects, making the competitive landscape more intense.</li></ul> <p>隨著國家能源結構改革的推進與號召，眾多央企響應號召加入新能源行業，同時市場對新能源項目的發電效率及發電成本有更高的要求，使競爭格局可能變得更加激烈。</p>	<ul style="list-style-type: none"><li>The project development model has to be closely linked to market demand, and through in-depth research on market trends and consumer needs, we identify and implement appropriate development strategies.</li></ul> <p>項目開發模式需與市場需求緊密相連，通過深入研究市場趨勢和消費者需求，尋找並實施合適的發展戰略。</p>



Type of Risk 風險類型	Details of Risk 風險內容	Time Frame 時間範圍	Potential Impact on Business, Strategy and Finance 潛在業務、戰略和財務影響	Countermeasures 應對措施
<b>Transition risks</b> <b>轉型風險</b>	 Technology risk 技術風險	Long-term 長期	<ul style="list-style-type: none"> <li>Along with the continuous acceleration of energy production equipment upgrade and replacement as well as technological advancement, the entire energy industry is affected. In order to maintain competitive edges, enterprises need to actively make investment in the research and development of new technologies and the upgrade of existing equipment, which leads to an increase in investment in research and development. 隨著能源生產設備更新換代和技術進步的不斷加速，對整個能源行業產生影響，為了保持競爭優勢，企業需要積極投資於新技術的研發和現有設備的升級，這導致研發投入加大。</li> </ul>	<ul style="list-style-type: none"> <li>We track the development trend of low-carbon technology, increase our research and development budget, and support the development and iteration of new energy projects to maintain our competitive edges. 追蹤低碳技術發展趨勢，增加研發預算，支持新能源項目的開發和迭代，以保持競爭優勢。</li> <li>We advocate a green supply chain, give priority to suppliers with ISO environmental management system certification, and encourage the procurement of products that meet the environmental protection requirements, so as to meet the public's preference and expectations for environmental protection technology. 提倡綠色供應鏈，優先選用具備ISO環境管理體系認證的供應商，鼓勵採購符合環保要求的產品，從而滿足公眾對環保技術的偏好及期望。</li> </ul>

### Active Response to Climate-Related Risks

In order to cope with the physical risks brought about by climate change, the Group has formulated special inspection and contingency plans for extreme weather and natural disaster events such as thick fog, thunderstorm, flood, gale, mudflow, earthquake, geologic hazard, frost and rainstorm in accordance with the Measures for the Management of Production Safety Emergency. We have set up an emergency command organisation and segregated the responsibilities of each working group to ensure quick response. At the same time, we regularly carry out safety and emergency rescue training to improve the emergency response capabilities of employees. For example, in 2024, our Hunan Hanshou Power Plant held emergency drills for heatstroke and drowning, respectively, to instruct power plant personnel on how to carry out first aid when faced with related incidents. As extreme weather events become more frequent, it is particularly important to raise employees' awareness of these potential risks through relevant drills. In terms of transition risks, the Group has cultivated professional talents, strengthened the research and development of new energy, actively innovated technology, optimised equipment, and enhanced the ability to adapt to and mitigate climate change.

### 積極應對氣候風險

為應對氣候變化帶來的實體風險，本集團依據《安全生產應急管理辦法》，針對極端天氣和自然災害，包括大霧、雷暴、洪水、大風、泥石流、地震、地質災害、霜凍、大雨等，制定了專項檢查和應急預案。我們建立了應急指揮機構，明確各小組職責，確保快速響應。同時，我們定期開展安全和應急救援培訓，提升員工處理突發事件的能力。例如二零二四年度，我們的湖南漢壽電站分別舉行高溫中暑及溺水應急演練，指導電站人員在面對相關事件時如何開展急救工作。隨著極端天氣事件變得更加頻繁，透過相關演練提高員工對這些潛在風險的認識變得尤為重要。而在轉型風險方面，本集團培養專業人才，強化新能源研發，積極創新技術，優化設備，增強適應和緩解氣候變化的能力。

**Case:  
案例：****Innovative solutions for inverter failure due to overheating  
逆變器高溫故障的創新解決方案**

In response to the frequent start-up and shutdown and the increased failure rate of Guanya inverters due to overheating in high temperatures in summer, BJEI's Gansu Jiayuguan Power Plant has set up a research team to analyse the causes thereof and carry out technological transformation including, among others, replacing equipment and adding protective shielding and exhaust fans, and transform the ventilation and cooling system of the inverter room to effectively lower operating temperatures and reduce start-up and shutdown due to overheating. In view of the fact that climate change has led to a rise in overall temperature and increasingly frequent extreme high temperature events, this project has updated the equipment and cooling system in advance to reduce the risk of failure in extreme weather.

京能國際甘肅嘉峪關電站針對冠亞逆變器在夏季高溫時頻繁過溫啟停、故障率上升的問題，組建研究小組進行原因分析和技術改造，包括更換設備、增設防護遮擋及抽風機等，改造逆變器室通風散熱系統，有效降低運行溫度，減少過溫啟停機情況。鑒於氣候變化導致整體溫度上升、極端高溫事件日益頻繁，此次項目提前更新設備及散熱系統，降低了極端天氣下故障風險。



Transformation of the ventilation and cooling system of the inverter room  
改造逆變器室通風散熱系統

Opportunities 機遇類型	Potential Impact on Business, Strategy and Finance 潛在業務、戰略和財務影響	Actions to Realise Opportunities 實現機遇措施
 Market 市場	<ul style="list-style-type: none"><li>Against the background of China's dual-carbon policy, there has been an increased market demand for new energy, which has facilitated the Group in expanding the market scale of its new energy projects and attracting more investments. 在國家雙碳政策的背景下，市場對新能源的需求增加，有助於本集團擴大新能源項目的市場規模，吸引更多投資。</li></ul>	<ul style="list-style-type: none"><li>Conduct a comprehensive analysis of the new energy market, broaden the portfolio of new energy projects and expand the new energy segment, so as to capture a larger market share and seize different opportunities. 全面分析新能源市場，擴大新能源項目組合，擴展新能源板塊，以搶佔更大的市場份額，抓住不同的機遇。</li><li>Actively develop green financial products such as securities investment funds for the infrastructure of photovoltaic projects, so as to seize market opportunities. 積極發展光伏項目基礎設施證券投資基金等綠色金融產品，以抓緊市場機遇。</li></ul>
 Resource efficiency 資源效率	<ul style="list-style-type: none"><li>The Group's technological advancement in new energy projects has enabled the improvement of efficiency and quality of new energy development and operation, while also increasing the income from sales of electricity and reducing the maintenance costs as a result of the enhancement of power generation efficiency. 本集團在新能源項目方面的技術進步能夠提高新能源開發及營運的效率和質量，同時因發電效率提升增加電力銷售收入，降低維護成本。</li></ul>	<ul style="list-style-type: none"><li>Embrace emerging technologies and innovative solutions to enhance the competitiveness of new energy projects. 採用新興技術及創新解決方案，提高新能源項目的競爭力。</li><li>Actively explore the solution on how to optimise the existing maintenance procedures and technical equipment to reduce the maintenance costs of existing new energy projects. 積極探討如何優化現時維護程序與技術設備，以減少現有新能源項目維護成本。</li><li>Continuously improve the work processes and the Group's various systems and mechanisms to improve operational efficiency. 持續精進工作流程和本集團的各種體制與機制，以提升營運的效率。</li></ul>



Opportunities 機遇類型	Potential Impact on Business, Strategy and Finance 潛在業務、戰略和財務影響	Actions to Realise Opportunities 實現機遇措施
	<ul style="list-style-type: none"> <li>Facing the challenge of global climate change, stakeholders are paying increasing attention to the sustainable development and environmental performance of enterprises. As a renewable energy power generation company, we support low-carbon energy transformation and help the society adapt to climate change. This will enhance our business and brand value, thereby increasing our financing channels and improving our financing capabilities.</li> </ul> <p>面對全球氣候變化挑戰，持份者越發重視企業的可持續發展與環保表現，作為可再生能源發電企業，我們支持低碳能源轉型，協助社會適應氣候變化，這將提升業務與品牌價值，從而增加融資渠道，提升融資能力。</p>	<ul style="list-style-type: none"> <li>Invite stakeholders to participate in the materiality assessment survey to understand their expectations and respond to their most concerned ESG issues in the report to ensure that stakeholders understand the Group's progress on critical ESG issues and sustainable development goals.</li> </ul> <p>邀請持份者參與重要性評估調查，以了解持份者期望，並在報告中回應其最關注的ESG事項，確保持份者了解本集團在關鍵ESG事項和可持續發展目標上的進展。</p>

## Indicators and Targets

The Group actively addresses the challenges of climate change and adheres to low-carbon development. We fully implement energy-saving and consumption-reduction measures, and accurately grasp the information on energy consumption and carbon emissions through the Group's greenhouse gas emissions verification. At present, we are actively deploying in the field of diversified clean and low-carbon energy and exploring the innovation of green financial products. These measures not only help reduce carbon footprints, but also enhance the Company's competitiveness in the electric power market. Through all-round efforts, BJEI has made significant contributions to achieving China's dual-carbon goals while promoting green and low-carbon transformation.

## 指標及目標

本集團主動應對氣候變化挑戰，堅持低碳發展。我們全力實施節能降耗措施，通過集團溫室氣體排放核查，精準掌握能源消耗和碳排放情況。目前，我們積極佈局多元清潔低碳能源領域，並探索綠色金融產品創新。這些舉措不僅幫助減少碳足跡，還提升了公司在電力市場的競爭力。通過全方位努力，京能國際在推動綠色低碳轉型的同時，為實現國家雙碳目標作出了重要貢獻。

Greenhouse Gas Emissions

溫室氣體排放

Greenhouse Gas Emissions 溫室氣體排放	Scope 範圍	Unit 單位	2024 二零二四年	2023 二零二三年	2022 二零二二年
Total greenhouse gas emissions 溫室氣體排放總量	Scope 1: Direct emissions <sup>3</sup> 範圍1： 直接排放 <sup>3</sup>	(tCO <sub>2</sub> e) (噸二氧化碳當量)	670	790	729
	Scope 2: Energy indirect emissions <sup>4</sup> 範圍2： 能源間接排放 <sup>4</sup>	(tCO <sub>2</sub> e) (噸二氧化碳當量)	60,545 <sup>5</sup>	37,159	34,468
	Scope 3: Other indirect emissions <sup>6</sup> 範圍3： 其他間接排放 <sup>6</sup>	(tCO <sub>2</sub> e) (噸二氧化碳當量)	903 <sup>7</sup>	369	—
Emissions intensity 排放強度	Scope 1, 2 and 3	(tCO <sub>2</sub> e per GWh electricity generated)			
	範圍1,2,3	(噸二氧化碳當量／吉瓦時發電量)	3.20	2.78	4.93

<sup>3</sup> Scope 1 covers greenhouse gas emissions directly generated from the operations owned or controlled by the Group, including emissions from fuel consumed by corporate vehicles and emission reductions due to tree planting.

<sup>4</sup> Scope 2 covers electricity and heating purchased externally which are necessary for the operation and production activities of the Group.

<sup>5</sup> During the Year, due to the addition of 38 new power plants, electricity consumption increased and accordingly greenhouse gas emissions increased.

<sup>6</sup> Scope 3 covers business travel by employees, methane gas generation at landfill due to disposal of waste paper and electricity used for fresh water and sewage processing which are other indirect emissions that occur outside the Company.

<sup>7</sup> During the Year, due to frequent business travel by employees, Scope 3 greenhouse gas emissions increased.

<sup>3</sup> 範圍1包括本集團擁有或控制的業務活動直接產生的溫室氣體排放，包括公司車輛所消耗燃料產生的排放及植樹引起的排放減少。

<sup>4</sup> 範圍2包括本集團營運及生產活動所需的外部購買的電力及熱力。

<sup>5</sup> 由於本年度新增電站38座，導致用電量上升，溫室氣體排放量因而上升。

<sup>6</sup> 範圍3包括僱員差旅、因處理廢紙而在垃圾填埋場產生的甲烷氣體以及用於淡水及污水處理的電力，該等均產生於本公司外部的其他間接排放。

<sup>7</sup> 由於本年度員工差旅頻繁，導致範圍3溫室氣體排放量上升。

## PRESERVING LAND RESOURCES

The Group strictly complies with the Environmental Protection Law of the People's Republic of China, the Soil and Water Conservation Law of the People's Republic of China, the Notice of the State Council on Issuing the Soil Pollution Prevention and Control Action Plan and the Regulations on the Administration of Construction Project Environmental Protection. The Group does its best to reduce the possibility of negative impacts of clean energy projects on land through the effective application of scientific management and land restoration measures such as construction of berms, diversion channels and revegetation to prevent soil erosion.

### Selecting Sites Carefully

The Group has reduced the impact on existing land use by selecting wastelands, deserts and idle lands in coal mining subsidence areas as the preferred sites for project construction. When the use of relatively valuable land, such as farmland or woodland, is unavoidable, we will strive to preserve the original landscape and work closely with local governments to meet national and local agroforestry regulations.

### Reversing Land Degradation

The Group is committed to curbing land degradation and actively adopts a number of soil and water conservation measures to avoid soil erosion and land degradation caused by clean energy projects. Meanwhile, in the preliminary feasibility study stage of new projects, the Group conducts special inspection on ecological environmental protection in conjunction with the characteristics of the projects to ensure that the surrounding environment will not be affected during construction. We have designed soil and water conservation measures and formulated soil and water conservation plans in accordance with the relevant laws and regulations on soil and water conservation and the requirements of soil and water conservation technical standards for production and construction projects, based on the characteristics of soil and water erosion in the construction area.

## 土地資源保護行動

本集團嚴格遵守《中華人民共和國環境保護法》、《中華人民共和國水土保持法》、《國務院關於印發土壤污染防治行動計劃的通知》、《建設項目環境保護管理條例》。本集團通過有效運用科學管理及土地恢復措施，如修建護堤、導流渠及植被重建，防止土壤侵蝕，竭力降低清潔能源項目對土地造成負面影響的可能性。

### 審慎選址

本集團通過項目建設場地首選荒地、沙漠及採煤沉陷區閒置土地等措施，減少對現有土地用途的影響。當不可避免使用農地或林地等相對寶貴的土地時，我們會竭力維護原始地貌，並與地方政府緊密溝通，以滿足國家及當地農林業的規定。

### 逆轉土地退化

本集團致力於遏制土地退化，積極採取各種水土保持措施，防止清潔能源項目引發土壤侵蝕和土地退化。同時，在新項目的前期可行性研究階段，結合項目特點，對生態環境保護進行專項審查，確保施工建設不會對周邊環境造成影響。我們依照水土保持有關法律法規與生產建設項目水土保持技術標準的要求，針對建設地區水土流失特點，設計水土保持措施，制定水土保持方案。

**Case:  
案例：**

**Soil and water conservation and restoration project of Tongliao Base  
通遼大基地水土保持及修復項目**

For our Tongliao Base, we have formulated a special plan for soil and water conservation covering three wind farm areas, namely Dalin Town, Molimiao and Gaolintun. Before the commencement of construction, we analysed the existing status of soil and water erosion and estimated the amount of soil loss, conducted soil and water erosion hazard analysis, divided soil and water erosion prevention and control zones, and formulated artificial soil and water erosion prevention and control measures such as land consolidation, artificial grass planting, recultivation and shrub planting. The soil and water conservation measures for the soil and water conservation construction of this project cover an area of approximately 202 hectares, with a total investment of RMB104 million.

通遼大基地制定水土保持專項方案，涵蓋大林鎮、莫力廟及高林屯三個風電場區。在建設開始前分析水土流失現狀並預測土壤流失量，進行水土流失危害分析，劃分水土流失防治分區，制定土地整治、人工種草、復耕、灌木栽植等人工種水土流失防治措施。此項目水土保持工程水土保持措施面積約202公頃，總投資達人民幣1.04億元。



**Case:  
案例：****Soil and water conservation project of Yongdeng Jingneng 100MW Agriculture-Solar Hybrid Power Plant  
永登京能100兆瓦農光互補發電水土保持項目**

To effectively control the impact of soil and water erosion caused by engineering construction, Yongdeng Jingneng has formulated a comprehensive soil and water conservation plan. The measures include, among others, land consolidation, design and implementation of drainage systems, and sowing grass seeds in construction sites and other belt areas to enhance soil stability and prevent erosion. Moreover, a soil and water conservation monitoring plan has been formulated, and prevention and control targets have been set. The soil and water conservation construction of this project controls soil and water erosion in an area of approximately 190 hectares, with a total investment of RMB2.07 million.

為有效控制工程建設所帶來的水土流失影響，永登京能制定完善的水土保持方案，措施包括進行土地整治、設計並實施排水系統、在施工場地等帶區域撒播草籽以增強土壤的穩定性和防止侵蝕等，另外更制定水土保持監測方案及設定防治目標。此項目水土保持工程治理水土流失面積約190公頃，總投資達人民幣207萬元。

**Integration of Photovoltaic Development with Local Industries**

The Group keeps exploring the innovative application scenarios of the photovoltaic industry. In addition to the traditional photovoltaic power plant industry model, the Group has also been actively exploring the application of "PV +" in various scenarios, realising the diversified and sustainable development of the industry. These new industry models such as "PV + Agriculture" have enabled the integrated use of green energy and land in an intensive and all-round process to maximise the use of land resources, while providing a new impetus for the transformation and development of the industry, thereby achieving significant economic and social benefits.

**光伏發展與當地產業相結合**

本集團在光伏產業的創新應用方面不斷探索，除傳統光伏電站產業模式外，還積極拓展「光伏+」在不同場景的應用，以實現產業的多元化和可持續發展。該等新產業模式如「光伏+農業」，實現了綠色能源和土地集約化、立體化的綜合利用，最大限度地利用土地資源，為產業轉型發展提供新動力，從而實現顯著的經濟和社會效益。

**PV + Fishery**

**光伏+漁業**

The 100MW photovoltaic power plant in Shiyong, Yichun City, Jiangxi Province has realised the dual benefits of photovoltaic power generation and aquaculture on the surface of the fish farm by installing photovoltaic panel arrays on the surface of the fish farm. It is also equipped with energy storage facilities to improve the utilisation rate of green electricity. 江西宜春石湧100兆瓦光伏電站通過在魚塘水面上方架設光伏板陣列，實現魚塘水面光伏發電與水產養殖的雙重效益，同時配備儲能設施，提高綠電利用率。



The fishery-solar hybrid project in Shiyong, Yichun City, Jiangxi Province  
江西宜春石湧漁光互補項目

**PV + Factory Rooftop**

**光伏+廠房屋頂**

The Pingshan Power Plant has made good use of the idle space on the rooftop of the switching station complex and the electrical room to install rooftop distributed power generation equipment with a total of 276 solar cell modules, so as to more effectively utilise power plant resources, increase power generation volume and reduce operation and maintenance costs.

平山電站善用開關站綜合樓和配電室屋頂閒置空間，安裝屋頂分布式發電設備，共276塊太陽能電池組件，以更有效地利用電站資源，提高電站發電量，降低運維成本。

**PV + Comprehensive Farming**

**光伏+綜合養植**

The Huoqiu Huayang Photovoltaic Power Plant has actively promoted agricultural innovation, and explored the new models of "PV + Rice-Shrimp Farming" and "Chinese Herbal Medicine + Special Farming". It has used the land under the solar panels to realise the integration of power generation and farming, which has not only improved land utilisation efficiency, but also increased farmers' income.

霍邱華陽光伏電站積極推動農業創新，探索「光伏+稻蝦」和「中草藥+特色養殖」的新模式，利用光伏板下的土地，實現發電與種植養殖一體化，不僅提高土地利用效率，還增加了農民收入。



The comprehensive farming project of Huoqiu Huayang Photovoltaic Power Plant  
霍邱華陽光伏電站綜合養植項目

**PV+ Fishery**  
**光伏+漁業**

**PV+ Factory Rooftop**  
**光伏+廠房屋頂**

**PV+ Comprehensive Farming**  
**光伏+綜合養植**

**PV+ Agriculture**  
**光伏+農業**

**PV+ 光伏+**

**PV+ Animal Husbandry**  
**光伏+畜牧業**



The Yila agriculture-solar hybrid project in Yuanjiang County, Yuxi City, Yunnan Province  
雲南玉溪元江縣邑拉農光互補項目

**PV + Agriculture**

**光伏+農業**

The Yila agriculture-solar hybrid project in Yuanjiang County, Yuxi City, Yunnan Province has adopted the "agriculture-solar hybrid" model, which organically combines photovoltaic power generation with agriculture. Solar panels have been installed in the upper space for power generation, and crops are planted in the land below, so as to improve land utilisation efficiency and maximise the output per unit area of land, thereby effectively promoting the integrated development of agriculture and new energy industries. 雲南玉溪元江縣邑拉農光互補項目採用「農光互補」模式，將光伏發電與種植業有機結合，上層空間安裝光伏板發電，下層土地種植農作物，提升土地利用效率，最大化單位面積土地產出，有效地推動了農業與新能源產業的融合發展。



The animal husbandry-solar hybrid project of Ningxia Yanchi Kaineng Photovoltaic Power Plant  
寧夏鹽池凱能光伏電站牧光互補項目

**PV + Animal Husbandry**  
**光伏+畜牧業**

The Ningxia Yanchi Kaineng Photovoltaic Power Plant is an animal husbandry-solar hybrid distributed power plant, which uses the rooftop and ground of the breeding base for complementary development. Combining animal husbandry with solar power generation, it has realised the value-added use of land, and promoted the development of modern and efficient animal husbandry.

寧夏鹽池凱能光伏電站屬於牧光互補分布式電站，利用養殖基地屋頂與地面相結合模式配套開發，結合畜牧業與太陽能發電，實現土地增值利用，推動現代高效畜牧業發展。

## MAKING EFFICIENT USE OF RESOURCES

The resource conservation management work is managed under the unified leadership of the Group with a hierarchical approach. The Group is in charge of providing general guidance to and supervising its branches and subsidiaries in resource conservation to ensure the effective implementation of resource conservation measures. The branches and subsidiaries shall perform their duties within the stipulated scope of resource conservation management and carry out the relevant management measures on resource conservation. The Group has promulgated a customised management system for office areas, strengthened the standardised management of office spaces, and puts forward effective resource-saving measures in conjunction with the Group's actual practice with a view to improving the efficiency of utilisation of resources in office spaces.

### Use of Energy

To strengthen and standardise the energy management of the Group and its subsidiaries, the Group's production safety department has compiled the Measures for Energy Conservation Management to ensure efficient and reasonable use of energy. We have promoted energy conservation and consumption reduction management systems in office spaces, and implemented a series of environmental protection and energy conservation measures in our power plants and offices. In addition, the Group has organised training activities in the theme of basic knowledge of environmental protection and laws and regulations on environmental protection, with an aim to enhance employees' awareness of environmental protection, energy conservation and emission reduction in their personal lives and professional activities. Through these trainings, the Group hopes that employees are able to participate in energy conservation practices more consciously and form the good habits of saving energy.

## 貫徹資源高效使用

本集團對節省資源管理工作實施統一領導和分級管理機制。本集團負責對下屬分公司和子公司的資源節約工作進行宏觀管理和監督，確保資源節約措施得到有效執行。各分公司和子公司則在各自的職責範圍內，具體實施相關的資源節約管理工作。為了提升辦公區域的資源利用效率，本集團為辦公區域制定定制化的管理制度，加強辦公場所的規範化管理，並結合本集團的實際實踐，提出有效的資源節約措施。

### 能源的使用

為加強和規範集團及其子公司的能源管理工作，本集團安全生產部已編製《節能管理辦法》，確保能源使用的高效和合理。我們在辦公場所推行節能降耗管理制度，同時在電站和辦公室實施了一系列環保節能措施。除此之外，本集團還組織了以環境保護基礎知識和環保法律法規為主題的培訓活動，目的是提升員工在個人生活和職業活動中的環境保護及節能減排意識。通過這些培訓，本集團期望員工能夠更加自覺地參與到節能實踐中，形成節約能源的良好習慣。

The following are some specific energy conservation measures adopted by the Group:

以下是本集團採取的一些具體節能措施：



### Designing Energy Conservation Scheme for Power Supply and Distribution Systems

設計供配電系統節能方案



### Updating Technologies and Equipments

技術及設備更新



### Energy Conservation Practices

節約能源實踐

- Filing the energy conservation registration form with local government departments at the project approval stage, and designing the energy conservation scheme for power supply and distribution systems as required. The design ideas include:  
在項目立項階段向當地政府部門備案節能登記表，按其要求為供配電系統設計節能方案。設計思路包括：
  1. reasonably selecting the capacity and number of transformers to reduce line loss;  
合理選擇變壓器的容量和台數，以減少線路損耗；
  2. improving the power factor of systems by configuring supporting electrical equipment, thereby reducing the energy consumption of power plants.  
通過配置配套電器設備來提高系統的功率因素，從而降低電站的能源能耗
- Using external wall insulation technology to reduce power consumption of air conditioning.  
採用外牆隔熱技術以減少空調耗電量
- Using LED lights with automatic switch at some power plant bases to avoid energy waste.  
於部分電站基地採用帶有自動開關的LED燈，避免能源浪費
- Strictly implementing the seasonal use time of electrical equipment to control energy consumption.  
嚴格執行用電設備的季節使用時間，控制能源消耗
- Turning off lights, air conditioners and other idle electrical appliances that are not in use, requiring staff to turn off lights when leaving, and prohibiting lights being kept on all the time or during daytime.  
關閉並無使用的照明設備、空調及其他閒置電器，要求人走燈滅，杜絕長明燈、白晝燈
- Adding supporting facilities such as charging piles for new energy vehicles to new construction projects, and giving priority to new energy vehicles when purchasing operation and maintenance vehicles.  
新建項目增設新能源汽車的充電樁等配套設施，並在購買運維車輛時，優先選擇新能源汽車

Furthermore, the Group strives to optimise the efficiency of energy use and takes specific measures to reduce power consumption through making quantitative analysis of power consumption to precisely keep track of and analyse the information on power consumption. By studying the grid's policy on adjusting electricity tariffs, the Group has applied the optimal SVG output method and transformed the frequency conversion technology of cooling fans to reasonably reduce SVG power consumption. Moreover, the Group has also flexibly applied the "PV +" model to utilise clean energy to reduce its own energy consumption.

進一步而言，本集團致力於優化能源使用效率，通過對用電消耗進行量化分析，精確追蹤和分析電力使用情況，並採取針對性改善耗電的措施。我們研究電網力調電費收取的政策，本集團採取最優SVG輸出方式，實施冷卻風機變頻技改，合理降低SVG耗電量。此外，本集團亦靈活運用「光伏+」模式，利用清潔能源，以降低自身能源消耗。



**Case:  
案例：****The low-carbon teaching complex of Datong Panda Photovoltaic Power Plant  
大同熊貓光伏電站低碳教學綜合樓**

The Datong Panda Photovoltaic Power Plant uses photovoltaic technology to power the teaching complex through the photovoltaic power generation and energy storage system, saving off-grid electricity in a self-generated and self-used manner. The system can generate an average of 200kWh of green electricity per day, which is equivalent to reducing 335,800 tons of carbon dioxide emissions. At the same time, the practical teaching area of the photovoltaic power generation and energy storage system provides systematic practical training for the trainees of the training centre, thereby promoting the application of low-carbon technology.

大同熊貓光伏電站利用光伏技術，通過光伏發電儲能系統為教學綜合樓供電，以自發自用方式節約下網電量。系統每天平均可產生200千瓦時的綠色電力，相當於減少33.58萬噸二氧化碳排放。同時，光伏發電及儲能系統的實踐教學區為培訓中心的學員提供系統的實踐培訓，促進了低碳技術的應用。



The photovoltaic power generation and energy storage system of the low-carbon teaching complex of Datong Panda Photovoltaic Power Plant  
大同熊貓光伏電站低碳教學綜合樓光伏發電儲能系統



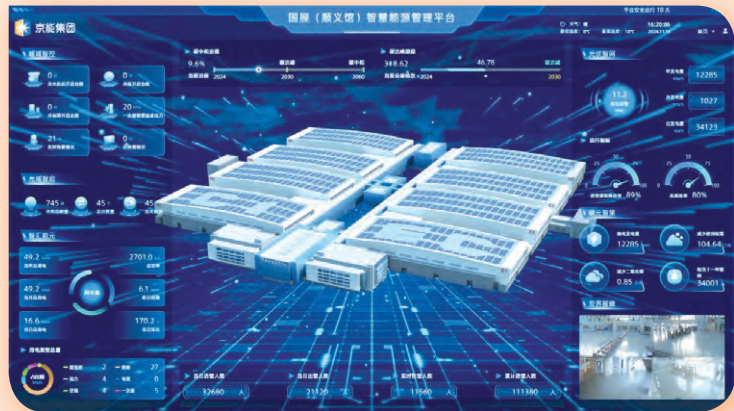
Case:  
案例：

**Smart energy management platform of the integrated energy project of the China International Exhibition Centre (Shunyi Hall) in Beijing**  
**順義區國展綜合能源項目智慧能源管理平台**

The integrated energy project of the China International Exhibition Centre (Shunyi Hall) in Beijing has significantly improved energy efficiency by transforming the energy system of the centre through intelligent means. In the first phase, the command centre has been upgraded, and the energy management platform has been used to realise real-time monitoring of the power station and pumping station, thereby enabling energy management, operation analysis, and visualisation of carbon assets and emissions. The comprehensive energy usage data has enabled the project company to specifically identify the energy parts that require optimisation, providing a scientific basis for the implementation of energy conservation measures.

北京順義區國展綜合能源項目通過智能化手段對國展中心的能源系統進行節能改造，顯著提高了能源效率。首階段升級指揮中心，並利用能源管理平台實現對動力站和泵房的實時監控，達成了能源管理、運營分析及碳資產、排放的可視化。全面的能源使用數據使得項目公司能夠針對性地識別需要優化的能源部分，為節能措施的實施提供了科學依據。

Panel of the smart energy management platform  
智慧能源管理平台面板

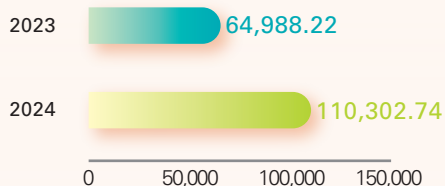


Electricity, natural gas and fuel oil consumed in offices and power plants are the main sources of the Group's energy consumption. During the Year, the Group consumed a total of approximately 114,451.78MWh of energy. The consumption of electricity, gasoline, diesel and heating accounted for approximately 96.37%, 1.33%, 0.32% and 1.98%, respectively, of total energy consumption. Consumption intensity was approximately 5.89MWh per gigawatt hour ("GWh") electricity generated. The annual electricity consumption was equivalent to approximately 0.57% of the total power generation of the Group's power plants. During the Year, the comprehensive electricity consumption rate of the plants of the Group was 1.58%, achieving the target of an average annual comprehensive electricity consumption rate of the plants of less than 1.8%.

辦公室及發電站所使用的電力、天然氣及燃油為本集團的能源消耗的主要來源。於本年度，本集團共計消耗約114,451.78兆瓦時的能源。電力、汽油、柴油及熱力的消耗分別佔總能耗的約96.37%、1.33%、0.32%及1.98%。消耗強度約為每吉瓦時（「吉瓦時」）發電量消耗5.89兆瓦時能源。年度用電量相當於本集團發電站總發電量約0.57%。於本年度，本集團綜合廠用電率為1.58%，達成了年平均綜合廠用電率低於1.8%的目標。

**Electricity (MWh)**YoY Change (approximate): 70%<sup>1</sup>

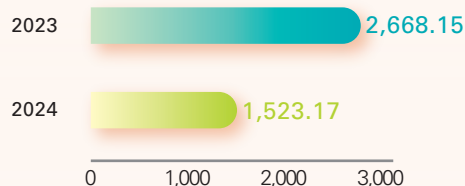
電力(兆瓦時)

年度變化(概約): 70%<sup>1</sup>**Gasoline (MWh)**

YoY Change (approximate): -43%

汽油(兆瓦時)

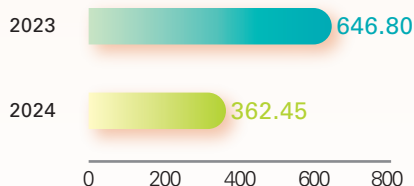
年度變化(概約): -43%

**Diesel (MWh)**

YoY Change (approximate): -44%

柴油(兆瓦時)

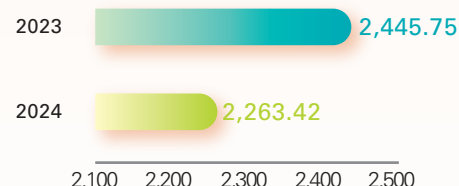
年度變化(概約): -44%

**Heating (MWh)**

YoY Change (approximate): -7%

暖氣(兆瓦時)

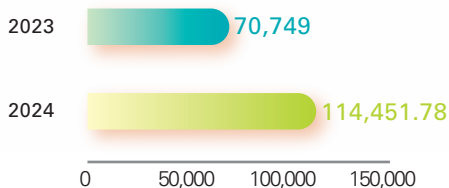
年度變化(概約): -7%

**Total (MWh)**

YoY Change (approximate): 62%

合計(兆瓦時)

年度變化(概約): 62%

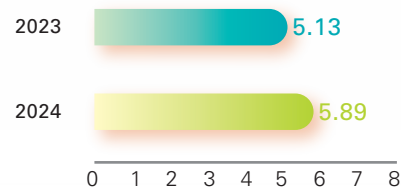
**Energy consumption intensity**

(MWh per GWh electricity generated)

YoY Change (approximate): 15%

能源消耗強度(兆瓦時/吉瓦時發電量)

年度變化(概約): 15%



<sup>8</sup> Total electricity consumption increased due to the addition of 38 new power plants during the Year.

<sup>8</sup> 由於本年度新增38座電站，總用電量上升。

## Use of Water Resources

The Group uses less water during the construction of photovoltaic power plants, and usually uses village waterwheels to fetch water locally. After being put into operation, the power plants are usually connected to the municipal water pipes according to their geographical location, and the major water consumption consists of water usage for solar panel cleaning and in offices. During the Year, we did not encounter any difficulties in accessing water.

In terms of the operation of power plants, we arrange the cleaning times and cleaning methods of components in a reasonable manner to reduce water consumption. Moreover, our power plants also reuse the wastewater, which, after being treated by wastewater treatment facilities, is used for irrigation or toilet flushing, thereby reducing domestic water consumption. In terms of the offices, the Group has promulgated a customised management system for the office area to conserve water and raise employees' awareness of water conservation.

The following are some specific water conservation measures adopted by us:

- Keeping monthly water usage records, promptly preventing improper water usage by recording and analysing the data of water usage for identifying the areas of low water use efficiency, and proposing corresponding measures for rectification  
保存月度用水記錄，通過記錄和分析用水數據，識別用水效率低下的環節，及時防止不當用水，並採取相應措施進行改進

- Exploring the possibility of recycling water resources  
探尋循環利用水資源的可能
- Setting up water collection basins, water tanks and other facilities in areas with abundant rainfall to collect and store rainwater for irrigation or other non-drinking purposes  
在降雨充沛的地區設置集水池、水箱等設施，通過收集和儲存雨水用於灌溉或其他非飲用用途

### Monitoring and Optimisation 監控與優化

### Recycling and Reuse of Resources 資源循環與再利用

- Posting water saving signs, and ensuring that water saving signs are posted in conspicuous spaces in office areas and power plants  
張貼節水標識，確保在辦公區域和電站的顯眼

### Planning and Raise of Awareness 規劃與意識提升

- Making a water use plan, and conducting daily supervision according to the plan  
位置都有節水提醒制定用水計劃及根據計劃進行日常監督
- Using water-saving flush toilets to reduce water consumption per flush  
選擇節水型馬桶，降低每次沖水的用水量
- Maintaining and checking the water supply network regularly to reduce the waste of water resources caused by leakage  
通過定期維護和檢查供水管網，減少漏水造成的水資源浪費

### Equipment Maintenance and Upgrade 設備維護與更新

## 水資源使用

本集團光伏電站建設過程中的用水量較少，通常藉助村鎮水車取水。發電站營運後通常根據其地理位置接入市政水管，主要用水包括清洗太陽能電池板用水及辦公室用水。在本年度我們並未有任何取水問題。

在電站運營方面，我們通過合理安排組件的清洗次數和清洗方式來減少水資源的消耗。此外，電站還實現了廢水的循環利用，將經過污水處理設施處理後的廢水再用於灌溉或沖廁，減少生活用水量。於辦公室方面，本集團為辦公區域制定定制化的管理制度，以節約用水，並增強員工的節水意識。

以下是我們實施的一些具體節水措施：

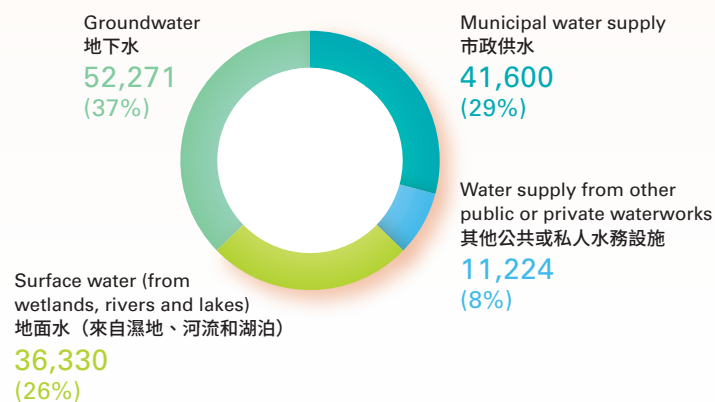
During the Year, the Group consumed a total of approximately 141,424.59 tons of water resources, and the water consumption intensity was approximately 7.28 tons per GWh electricity generated. During the Year, The Group did not have any problems with access to applicable water sources.

於本年度，本集團的水資源消耗共約141,424.59噸，耗水強度約為每吉瓦時發電量消耗7.28噸水資源。本集團於本年度並無任何獲取適用水源上的問題。



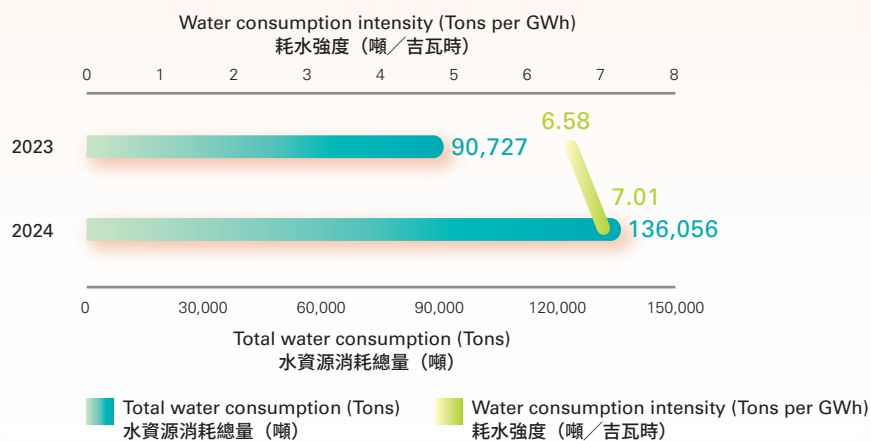
## Water Consumption in FY2024 (Tons)

二零二四財政年度水資源消耗 (噸)



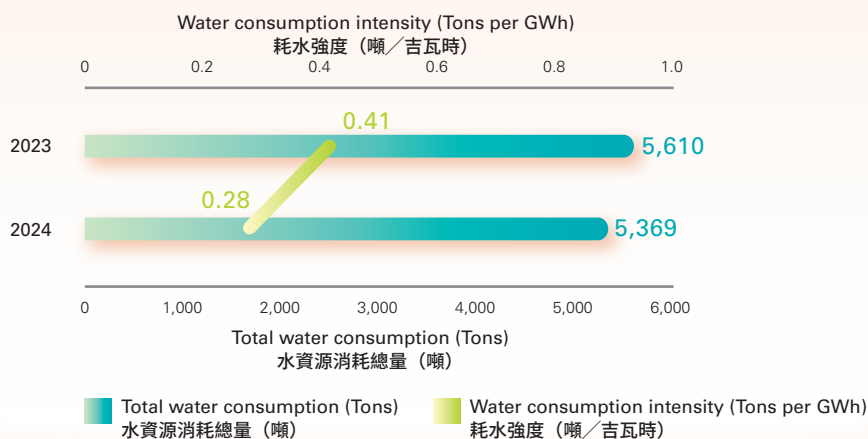
## Power Plants

電站



## Offices

辦公室



## Use of Paper

The strategy of reducing paper consumption is one of the effective measures in reducing greenhouse gas emissions. By minimising paper consumption and promoting sustainable practices, the Group can achieve significant environmental benefits. To this end, the Group has implemented in its office areas a customised management system, which includes the following specific measures on saving paper:

## 紙的使用

為減少溫室氣體排放，實施節約用紙策略是其中一個行之有效的舉措。通過減少紙張消耗和推廣可持續的實踐，本集團能實現顯著的环境效益。為此，本集團在辦公區域實施了定制化的管理制度，其中包括以下節約用紙的具體措施：



### Moving to paperless office 推行無紙化辦公

- Fully utilise the electronic transmission system to reduce paper use and move to a paperless office  
通過充分利用電子傳輸系統，減少紙張使用，實現無紙化辦公



### Optimising the use of paper 紙張使用優化

- Advocate printing on both sides to reduce paper consumption  
提倡雙面打印，減少紙張消耗
- Reduce unnecessary printing and copying  
減少不必要的打印和複印



### Recycling and reusing paper 紙張回收與再利用

- Set up waste paper recycling bins to recycle non-confidential and unimportant documents  
設置廢紙回收箱，回收非機密和非重要文件
- Reuse the recycled paper, e.g. as scrap paper  
將回收的紙張用於二次用途，如用作草稿紙



### Maintaining equipment and monitoring the use of paper 設備維護與用紙監控

- Advocate repair instead of replacement of old equipment to extend the service life of equipment  
提倡修舊利廢，延長設備使用壽命
- Keep a monthly record of paper use, monitor the use of paper, and prompt identify and report the irregularities in paper use  
保存月度用紙記錄，監控用紙情況，及時發現並報告異常使用

## PROTECTING THE NATURAL ECOLOGICAL ENVIRONMENT

The Group strives to prevent environmental pollution and ecological damage at the source in accordance with the principle of “prioritising conservation and ecology first”, and has formulated the Measures for Environmental Protection Management and the Guidelines for the Technical Supervision of Environmental Protection to take environmental protection measures in the design, construction and operation of each project, so as to effectively reduce the impact on the ecological environment, thereby facilitating the harmonious coexistence of human and nature with practical actions and promoting ecological balance and sustainable development.

We endeavour to maintain the harmonious balance of ecological protection and corporate development, and strictly comply with various rules and regulations related to biodiversity. We have stipulated the requirements for biodiversity protection in the process of project development, construction, operation and maintenance, fully identified and analysed the biodiversity risks in wind farms and their surrounding habitats, especially in areas rich in biological resources, and focused on the impact of bird strikes, blocking of wildlife migration channels, habitat loss and environmental pollution to strictly implement biodiversity protection measures, so as to avoid or reduce potential impacts.

During the Year, the Group implemented a number of ecological protection measures, including the 1,380MW ecological governance wind power base project in Keerqin District, Tongliao City. In addition to conducting a series of environmental impact assessments and analysing environmental factors that may affect the ecology during the project, the Group also formulated a green construction plan for project construction, providing guidance for various stages such as construction planning, material procurement and on-site construction to reduce damage to the ecological environment. Our investment in environmental protection amounted to RMB104 million. Moreover, in 2024, Yongdeng Jingneng New Energy Power Co., Ltd. invested RMB2.07 million in its 100MW agriculture-solar hybrid power generation project. Through artificial seeding, the grassland ecology within the project wind farm area had been restored to the same level as before the construction, and the ecological function of grassland including, among others, windbreak and sand fixation, water conservation and biodiversity protection had been initially restored. In order to strengthen the operation and maintenance team's understanding and practice of ecological protection, the Group carried out a series of training activities covering, among others, knowledge of ecological protection, ecological protection laws, ecological protection systems and pollution control, thereby ensuring that they can take proactive actions in their daily work to protect and maintain the ecological environment surrounding the power plants.

## 守護自然生態環境

本集團致力從源頭上預防環境污染及生態破壞，我們秉持「保護第一、生態第一」的原則，制定《環境保護管理辦法》和《環境保護技術監督導則》，在每個項目的設計、建設和運營過程中採取環境保護措施，以有效降低對生態環境的影響，以實際行動促進人與自然的和諧共生，促進生態平衡和可持續發展。

我們致力實現生態保護與企業發展的和諧共存，嚴格遵守生物多樣性有關的各項規章制度，明確項目開發、建設和運維過程中生物多樣性保護的要求，充分識別和分析風電場及周邊棲息地，特別是在生物資源豐富地區的生物多樣性風險，重點關注鳥類撞擊，野生動物遷移通道遮擋、棲息地喪失及環境污染等影響嚴格執行生物多樣性保護措施，以預防或降低潛在影響。

本年度，本集團實施多項生態保護措施，包括通遼市科爾沁區138萬千瓦生態治理風電基地項目，不但進行一系列環境影響評估，分析工程中會影響生態的環境因素，更就項目建設制定綠色施工方案，為施工策劃、材料採購、現場施工等各個階段提供指引，以減少對生態環境的破壞，環境保護投入資金為人民幣1.04億元。另外，二零二四年度永登京能新能源電力有限公司為其100兆瓦農光互補發電項目投入人民幣207萬元，通過人工補播種修復項目風電場範圍草原生態，達到建設前草原生態覆蓋度，初步修復了草原的防風固沙、水源涵養、保護生物多樣性等生態功能。而為了強化運維團隊對生態保護的理解和實踐，本集團開展了一系列的培訓活動，涵蓋生態保護常識、生態保護法律、生態保護制度、污染治理等知識，確保他們在日常工作中能夠積極採取行動，保護和維護電站周圍的生態環境。

Case:  
案例：

**We achieved a milestone progress in our grassland ecological restoration experiment**

**草原生態修復試驗取得階段性成效**

The Group, in collaboration with the Inner Mongolia Academy of Agricultural and Animal Husbandry Sciences, selected 100mu of degraded grassland in the southern edge of the Hunshandake Sandy Land in Inner Mongolia for an ecological restoration experiment, using measures such as enclosure, grazing ban and fertilisation to conduct group comparative studies. The results showed that, after restoration, the grassland vegetation species increased by 83.3%; the community density increased threefold; and the productivity increased twentyfold. The next step for the research team will be to study the changes in soil and vegetation under different measures, and explore the restoration mechanism and corresponding restoration technology model of degraded grasslands.

本集團聯合內蒙古自治區農牧業科學院，於內蒙古自治區渾善達克沙地南緣帶選取了100畝退化草原進行生態修復試驗，採用圍封、禁牧施肥等措施，進行分組對比研究。結果顯示，修復後草原植被物種增加83.3%，群落密度增三倍，生產力提升二十倍。研究團隊下一步將研究不同措施下土壤和植被變化，探索退化草原的修復機制及相應的修復技術模式。



The ecological restoration experiment in Inner Mongolia  
內蒙古自治區生態修復試驗



Be People-Oriented and  
**Insist on Equal and Compliant  
Employment**

以人為本 平等合規僱用



In its long-term business practice, the Company has gradually established the talent work objective of “stimulating individuality, enriching commonality, prioritising the capable ones, and achieving mutual success”, constantly attracted outstanding talents with potential, ability and vitality, stimulated the creativity of employees with the concept of “selecting and employing talents according to their abilities”, and provided a broad career development platform. We are committed to creating a harmonious, diverse and equal workplace environment, providing employees with market-competitive remuneration and benefits including care for their life, emotions and growth, thereby continuously enhancing the cohesion of the talent team, and ultimately achieving mutual accomplishment and common growth between the enterprise and the individuals.

在長期的業務實踐中，公司逐步樹立起「尊重價值、開發潛能、昇華心靈」的人才工作宗旨，不斷吸引有潛力、有能力、有活力的優秀人才，以「激發個性、豐富共性、能者為先、相互成就」的理念激發員工的創造力，提供廣闊的職業發展平台。我們致力於打造和諧、多元、平等的職場環境，為員工提供具有市場競爭力的薪酬福利，包括生活、情感、成長等多方面的關懷措施，持續增強人才團隊的凝聚力，最終實現企業與個人互相成就和共同成長。

KPIs:  
關鍵績效指標：



Total number of employees: 僱員總數：	1,918	Number of training hours per employee: 人均受訓時數：	235.52	Total hours of occupational health and safety training: 職業健康與安全培訓總時數：	51,000
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## TALENT RECRUITMENT AND RETENTION STRATEGIES

### Recruitment Management

The Group is fully aware of the important role of talents in supporting the development of the enterprise. Therefore, we strictly comply with the employment laws and regulations of our domestic and overseas business locations, such as the Labour Law of the People's Republic of China, the Labour Contract Law of the People's Republic of China, the Trade Union Law of the People's Republic of China and the Constitution of the All-China Federation of Trade Unions. We have formulated and implemented a series of regulations such as the Measures for Labour Contract Management, the Measures for Recruitment and Employment Management and the Employee Handbook, with an aim to regulate the recruitment and resignation procedures and safeguard the legitimate rights and interests of the Company and our employees.

Moreover, we respect our employees' will to resign. When an employee initiates resignation from the Company, we will arrange a resignation interview with the employee and ask about the reason for resignation, and accordingly take preventive and improvement measures in future work for resignations due to reasons on our part. We cooperate in completing all resignation and handover procedures, and coordinate work schedules and salary arrangements, so as to ensure that the interests of both the employees and the Company are free from infringement.

## 人才招募及挽留策略

### 招聘管理

本集團深知人才對於企業發展的重要支撐作用，因此我們嚴格遵守《中華人民共和國勞動法》、《中華人民共和國勞動合同法》、《中華人民共和國工會法》、《中國工會章程》等境內外業務所在地的僱傭法規，制定並實施《勞動合同管理辦法》、《招聘和錄用管理辦法》、《員工手冊》等一系列規定來約束招聘與離職程序，保障公司和員工的合法權益。

此外，我們尊重員工的離職意願，當員工向公司主動提出離職時，我們會主動與其進行離職談話，詢問離職原因，並對由於公司原因導致的離職在未來的工作中作出預防和改善措施。我們配合辦妥所有離職和交接手續，協調工作日程和工資安排，保障勞資雙方的利益不受侵害。

## Talent Selection

We formulate recruitment plans every year based on the Company's business development and job requirements, adhere to the principles of fairness, equality, competition and selection of the best, and focus on recruitment criteria such as applicants' academic background, professional competence, industry experience and job suitability, rather than race, ethnicity, gender, skin colour, age, religion and nationality, thereby firmly practicing the concept of equal and inclusive recruitment. In order to make our recruitment information reaching a wider range of people, we carry out recruitment publicity every year through diverse online and offline recruitment channels such as major recruitment websites, campus presentations and internal recruitment, with an aim to attract more different types of talents to join our team. For some applicants who are not hired due to objective considerations, as well as information on outstanding talents obtained from external channels, we will include them into the Group's talent reserve pool to improve the efficiency and quality of the Company's future recruitment. In addition, the Group's annual recruitment plan and list of candidates are submitted to the President and the Board for approval in accordance with the procedures to strictly control potential risks in the recruitment process.

In 2024, as of the end of the Reporting Period, the Group had 1,918 full-time employees and no part-time employees, of which 12 were full-time employees with disability.

## 甄選人才

我們每年根據公司的業務發展和崗位需求制定招聘計劃，堅持公平、平等、競爭、擇優的原則，在招聘時重點考量應聘者的學歷背景、專業能力、行業經驗以及崗位適配度等因素，而不會將種族、民族、性別、膚色、年齡、宗教、國籍等納入考察範圍，堅決踐行平等、包容的招聘理念。為了讓招聘信息觸達更廣泛的人群，我們每年會通過各大招聘網站、校園宣講、內部選聘等線上和線下結合的多元化招聘渠道進行招聘宣傳，吸引更多不同類型的人才加入我們的隊伍。對於一些因客觀因素未被聘用的應聘者，以及外部獲取的優秀人才信息，我們會將其納入集團人才儲備庫，提升公司未來招聘的效率和質量。此外，本集團每年的招聘計劃和擬聘名單均會按照流程報總裁和董事會審批，嚴格控制招聘過程中的潛在風險。

二零二四年截至報告期末，本集團共有1,918名全職員工，0名兼職員工，當中全職殘障僱員佔12名。



## Social Indicators (2024)

## 社會指標(二零二四年)

Total Workforce<sup>9</sup>  
僱員總數<sup>9</sup>By Region  
按地區

Overseas  
海外  
64  
(3.3%)

Hong Kong,  
China  
中國香港  
30  
(1.6%)

Mainland  
China  
中國內地  
1,824  
(95.1%)

By Age Group  
按年齡組別

41 or above  
41歲或以上  
593  
(30.9%)

30 or below  
30歲或以下  
516  
(26.9%)

31 to 40  
31歲至40歲  
809  
(42.2%)

By Gender  
按性別

Female  
女性  
389  
(20.3%)

Male  
男性  
1,529  
(79.7%)

By Education Background  
按教育背景

Non-tertiary  
qualification and  
below  
大專及以下學歷  
532  
(27.7%)

Bachelor  
學士  
1,120  
(58.4%)

Doctor  
博士  
10  
(0.5%)

Master  
碩士  
256  
(13.3%)

By Employee Category<sup>(1)</sup>  
按僱員類型<sup>(1)</sup>

Senior  
management  
personnel  
高級管理人員  
10  
(0.5%)

Middle  
management  
personnel  
中級管理人員  
104  
(5.4%)

General  
employee  
普通僱員  
1,804  
(94.1%)

Notes:

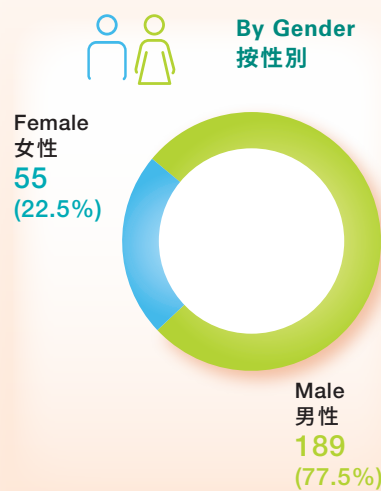
附註：

<sup>9</sup> Employee category is identified according to the actual situation of the Group.

<sup>9</sup> 僱員類型乃根據本集團實際情況而定。

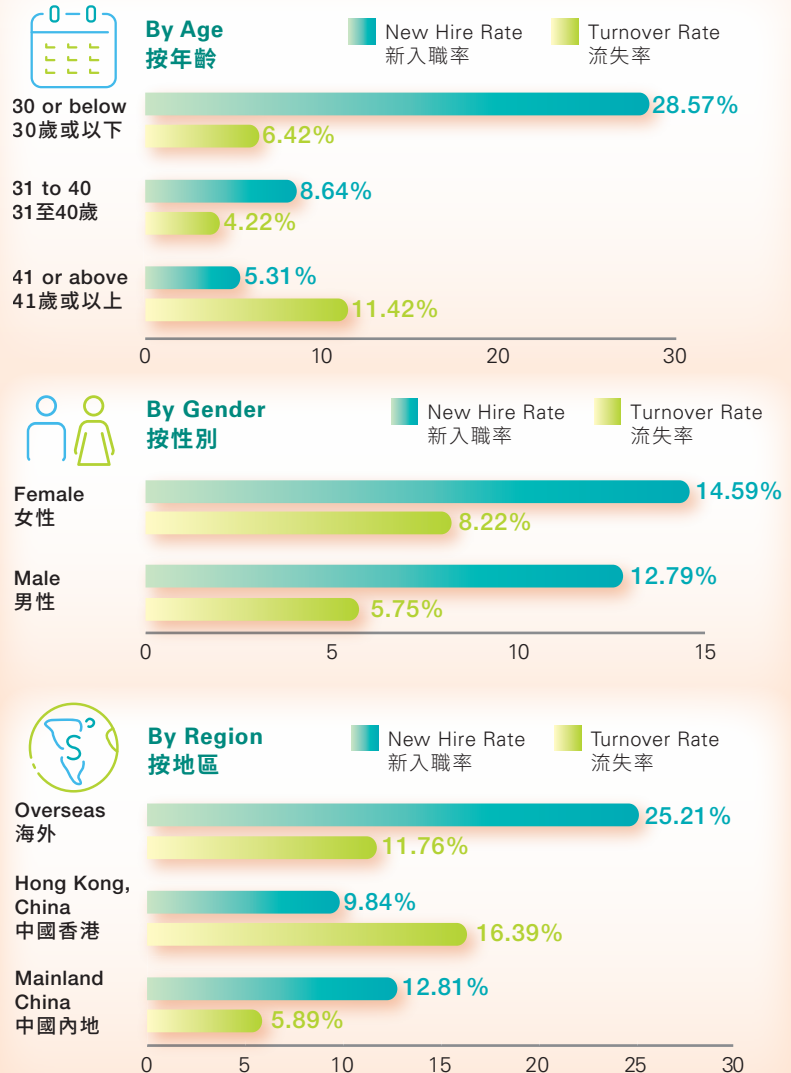
## Total Number of New Hire Employees and Ratio (2024)

新入職僱員總數及比例  
(二零二四年)



## Turnover Rate<sup>10</sup> and New Hire Rate<sup>11</sup> (2024)

流失率<sup>10</sup>及新入職率<sup>11</sup>  
(二零二四年)



Notes:

<sup>10</sup> Turnover rate = the number of employees who left during the Year / (the number of employees at the beginning of the Year + the number of employees at the end of the Year) / 2 × 100. Separate statistical analyses were conducted for different classification groups including age, region and gender.

<sup>11</sup> New hire rate = the number of employees started to be employed during the Year / (the number of employees at the beginning of the Year + the number of employees at the end of the Year) / 2 × 100. Separate statistical analyses were conducted for different classification groups including age, region and gender.

附註：

<sup>10</sup> 僱員流失率的計算公式為：本年度離職僱員／(年初僱員人數+年末僱員人數)／2x100，本集團已就不同分類組別(包括年齡、地區及性別)分別進行統計數據分析。

<sup>11</sup> 新入職率的計算公式為：本年度開始受僱的僱員／(年初僱員人數+年末僱員人數)／2x100，本集團已就不同分類組別(包括年齡、地區及性別)分別進行統計數據分析。

## Elimination of Child Labour and Forced Labour

The Group strictly complies with the Labour Law of the People's Republic of China, the Employment of Children Regulations and the Employment of Young Persons (Industry) Regulations of the Hong Kong Labour Department and other laws and regulations regarding the prohibition of child labour and anti-forced labour. During our recruitment process, the age and identity information of applicants are strictly reviewed to ensure that they meet the various standards in the employment regulations. If any misuse of child labour is identified, the Group will immediately terminate the labour relationship with such worker. The Group implements a five-day work week and has stipulated working hours. In case of special circumstances, the Company will notify the employees separately. The Group enters into labour contracts with employees on an equal and voluntary basis, in which the working hours, position and remuneration are specified. We also provide the Employee Handbook to clearly explain the various terms and conditions to safeguard the basic rights of employees.

During the Year, there were no incidents of employment of child labour or forced labour within the Group.

## Remuneration and Benefits

In order to continuously attract outstanding talents and retain existing talents, the Group has formulated rules such as the Measures for Employee Welfare Management, the Measures for Special Awards Management and the Measures for the Management of Remuneration and Job Levels, with an aim to ensure the remuneration and welfare benefits of employees and maintain the Group's dominant position in market talent competition. The Group has established an explicit job classification system covering four major categories, i.e. management, functional support, professional technology and project power plants, with 13 corresponding salary levels. For the selection of mid- and senior-level employees, we have formulated the Measures for the Management of Talent Evaluation and Recommendation to specify the promotion path and selection process. Appointment recommendations shall be made upon internal recommendations, talent assessment and comprehensive evaluation, coupled with consideration of job requirements and existing talents, and the recommended candidates shall be determined upon consideration at a special meeting. We divide the internal remuneration of the Company into the annual

## 杜絕童工與強制勞工

本集團嚴格遵守《中華人民共和國勞動法》，香港勞工處《僱傭兒童規例》、《僱傭青年（工業）規例》等法律法規有關禁用童工和反強制勞工的要求，在招聘過程中嚴格審核應聘者的年齡與身份信息，確保其符合僱傭條例中的各項標準。如發現誤用童工的情況，本集團將立即終止與其的勞動關係。本集團實行一週五天工作制，並已規定工作時間，若有特殊情況公司會另行通知。本集團在平等自願的基礎上與員工簽訂勞動合同列明工作時間、崗位、薪酬等，並提供《員工手冊》清晰闡明各項條款，維護員工的基本權利。

本年度，本集團未發生僱傭童工或強制勞工的事件。

## 薪酬與福利

為了在持續吸引優秀人才的同時挽留住現有人才，本集團制定了《員工福利管理辦法》、《專項獎勵管理辦法》、《薪酬及職位序列管理辦法》等制度，用於保障員工的薪酬福利待遇，維持本集團在市場人才競爭中的優勢地位。本集團已建立清晰的職位序列體系，涵蓋管理、職能支持、專業技術及項目電力四大類別，薪酬等級對應13個等級。針對中層及以上領導人員選拔，我們制定《人才評價及推薦任用管理辦法》，明確晉升路徑及選拔流程。通過內部推薦、人才測評及綜合評價，結合崗位需求及現有人才盤點，提出任用建議，經專題會審議後確定推薦人選。我們根據崗位的職位序列、工作內容和性質特點，將公司內部薪酬分為年薪制、崗位績效薪酬制、固定薪酬制，並根據實際情況進行調薪。我們還設置了專項獎勵制度，

salary system, the job performance-based remuneration system and the fixed remuneration system according to the job level, work content and nature of the position, and adjust the remuneration based on actual circumstances. We have also set up a special award system, including the project development award, profit contribution award, production safety award, power marketing award and other individual, group or project awards, so as to provide bonus incentives to employees or teams with outstanding performance and fully mobilise the work enthusiasm of employees.

In addition to the statutory “five insurances and one housing fund” and public holidays, we also provide employees with welfare holidays such as birthday leave and examination leave. We provide tea breaks and work meals from time to time during daily work, as well as welfare activities such as collective team building, educational lectures, cultural and sports competitions and health examinations to enhance team cohesion and help employees balance work and life. During the Year, we introduced parental leave as well as remuneration subsidies for positions in remote areas of 3,000 meters above sea level, in order to stimulate the work motivation of employees in such areas and address their worries.

包括項目開發獎、利潤貢獻獎、安全生產獎、電量營銷獎等個人、團體或項目獎項，對表現優秀的員工或團隊進行獎金激勵，充分調動員工的工作積極性。

除了法定的「五險一金」和公休假期外，我們還為員工提供生日假、考試假等福利假期，在日常工作中不定期提供茶歇與工作餐，以及集體團建、教育講座、文體競賽、健康體檢等福利活動，以增強團隊凝聚力，幫助員工平衡好工作和生活。本年度，我們新增了育兒假並為海拔3,000米以上的偏遠地區崗位新增了薪酬補貼，激發該類地區員工的工作動力，解決他們的後顧之憂。



**Case:  
案例：****“Towards the Future, Creating Infinity” team building and employee hiking activity  
「向未來 創無限」團建暨職工健步登山活動**

On 5 November 2024, the Company's Labour Union and Company office organised all employees in Beijing to visit Fragrant Hills Park for a team building and employee hiking activity named “Towards the Future, Creating Infinity”. More than 150 employees participated in the team competition and individual hiking competition along the planned route, appreciating the beautiful scenery of autumn foliage while relaxing in the beauty of nature.

二零二四年十一月五日，本公司工會、公司辦公室組織全體在京職工來到香山公園，開展名為「向未來 創無限」的團建暨職工健步登山活動。本次活動參與員工超150人，大家沿著規劃路線展開團隊賽和個人登頂賽，在鑒賞金秋美景的同時，在大自然的美景中放鬆身心。

Photos of the “Towards the Future, Creating Infinity”  
team building and employee hiking activity

「向未來 創無限」團建暨職工  
健步登山活動剪影



Group photo of employees participating in the activity  
參與活動職工合影

## Employee Culture Cultivation

Employee culture cultivation is a key human resources task that the Company has been adhering to for a long time, aiming to enhance employees' sense of belonging and experience, and then cultivate their sense of identity with the Company and sense of mission for work. We take ideological development, self-efficiency development, care for women and warm care as the four major development platforms, and organise a variety of employee activities through the Group's Labour Union and cultural and sports associations to enrich employees' leisure time.

## 僱員文化建設

僱員文化建設是本公司長期以來一直堅持的重點人力工作，旨在提高員工的歸屬感和體驗感，進而培養其對公司的認同感和對工作的使命感。我們以思想建設、自我效能建設、關愛女性、溫暖關懷為四大建設平台，以集團工會文體協會為抓手，組織開展多種多樣的員工活動，豐富員工的業餘生活。

### Case: "Young Speakers" competition 案例：「青年演說家」大賽

On 13 September 2024, on the occasion of the 75<sup>th</sup> anniversary of the founding of the People's Republic of China, the finals of the "Young Speakers" keynote speech competition on integrating reform, releasing vitality, strengthening the country, fostering enterprises and creating brilliance, hosted by the Party Committee and organised by the Youth League Committee of the Company, was held in Beijing. After a month of fierce competition, 21 contestants from our various branches and subsidiaries successfully entered the finals. The contestants' speeches showed their profound feelings of loving the party, the country and the Company. In the end, 16 contestants won various awards, which inspired our employees to work hard and forge ahead with unwavering perseverance on the new journey.

二零二四年九月十三日，在新中國成立75週年之際，由公司黨委主辦、團委承辦的融合改革釋活力強國興企創輝煌「青年演說家」主題演講比賽決賽在京召開。經過一個月的激烈角逐，來自各分子公司的21名選手成功入圍決賽，選手們的演說中展現愛黨、愛國、愛企的深厚情懷，最終16名選手榮獲各類獎項，激勵廣大職工在新徵程上砥礪奮鬥，行穩致遠。



Group photo of winners of the Young Speakers competition  
「青年演說家」大賽獲獎者合影

**Case:  
案例：****2024 “May 1<sup>st</sup>” Labour Medal, “BJEI Craftsmen” and  
“Pioneer Worker” team selection activity  
二零二四年「五一」勞動獎章、京能工匠、「工人先鋒號」班組評選活動**

Since March 2024, the Company's Labour Union organised the selection activity for the Year, in which six organisations were named as a “Pioneer Worker” team, six outstanding employees received the “May 1<sup>st</sup>” Labour Medal and four outstanding employees were awarded the honorary title of “BJEI Craftsmen”. The Group has commended these outstanding teams and individuals to set an excellent example within the Company, and encourage and mobilise our employees to make further contributions in promoting the high-quality development of the Company.

二零二四年三月起，本公司工會組織開展本年度評選活動，當中共有六個組織榮獲「工人先鋒號」班組，六位優秀員工榮獲「五一」勞動獎章，四位優秀員工獲得「京能工匠」榮譽稱號。集團對這些優秀團隊和個人進行嘉獎，在本公司內部樹立卓越榜樣，激勵和動員廣大職工在推動公司高質量發展中再立新功。



Selection activity organised by the Labour Union  
工會組織評選活動



## Employee Communication and Complaints

The Group attaches great importance to communication with employees and actively expands communication channels to listen to employees' demands and suggestions. We have listed the communication channels provided by the Company for all employees in the Regulations on the Management of Labour Union Work and the Employee Handbook. Employees can communicate through the OA system, corporate WeChat, email and other platforms. When employees believe that their rights have been violated or identify any act of violation, they can file a complaint with the Company, which will handle it step by step according to the regulations to ensure clear feedback. When managing workplace discipline, the Group follows the Measures for the Management of Employee Workplace Discipline and adheres to the principle of giving priority to reason and taking both reason and emotion into consideration. In the process of handling such issues, the Group respects and understands the feelings of employees, who shall have the right to state and defend their position on the handling of such issues. The special work leading group for workplace discipline management shall review the case, and the audit and supervision department shall be responsible for accepting employee complaints and reports, in order to safeguard the rights and interests of employees to submit complaints.

We have also set up a rationalised suggestion collection office where employees can make rationalised suggestions to the Company regarding aspects such as technological transformation and work efficiency improvement. Our staff will review and respond to the suggestions, implement measures in a timely manner for the adopted rationalised suggestions or technological innovation projects, and reward those who made the suggestions.

## 員工溝通與申訴

本集團高度重視與員工的溝通工作，主動拓寬交流渠道傾聽員工的訴求和建議，我們在《工會工作管理規定》和《員工手冊》列明瞭公司為全體員工提供的溝通渠道，員工可以通過OA系統、企業微信、電子郵件等平台進行溝通。當員工認為自身權利受到侵犯或發現違規行為時，可向公司提出投訴，公司將按規定逐級處理，確保有明確的反饋。管理職場紀律時，本集團依據《員工職場紀律管理辦法》，管理過程遵循以理為重、情理相融的原則，處理問題過程中尊重和理解僱員的感受。僱員對問題的處理擁有陳述和申辯的權利，職場紀律管理專項工作領導小組將復議，並有審計監督部門負責僱員投訴與檢舉的受理，維護僱員的申訴權益。

我們還設立合理化建議徵集辦公室，員工可以針對技術改造、工作提效等內容向公司提出合理化建議，工作人員將會對建議進行評審和答覆，對被採納的合理化建議或技術革新項目及時落實措施，並對建議人進行獎勵。



**Case:  
案例：****The Second Workers Congress (First Session) and  
2024 Work Conference was successfully held in Beijing  
第一屆二次職工代表大會暨二零二四年工作會在京勝利召開**

On 1 February 2024, the Company held the Second Workers Congress (First Session) and 2024 Work Conference in Beijing. The conference summarised the work achievements in 2023 and the successful experience of the past three years, deployed the key tasks for 2024 and the future, and commended the advanced collectives and individuals for 2023.

二零二四年二月一日，公司在北京召開第一屆二次職工代表大會暨二零二四年工作會。本次會議總結了二零二三年的工作成果及過往三年的成功經驗，對二零二四年和今後一個時期的重點工作進行部署，並對二零二三年度先進集體和先進個人進行表彰。



The Second Workers Congress (First Session) and 2024 Work Conference  
第一屆二次職工代表大會暨二零二四年工作會

Case:  
案例：

**The “Empowering Youth Growth and Assisting Corporate Development”  
symposium for young employees**  
**「賦能青年成長 助力企業發展」青年員工座談會**

On 7 November 2024, the Company held the “Empowering Youth Growth and Assisting Corporate Development” symposium for young employees. 22 youth league representatives from the headquarters and various branches and subsidiaries met with the senior representatives of BJEI face to face to share their work insights and gains, and at the same time frankly expressed the confusion they encountered. The senior representatives gave detailed answers to each young person’s questions and suggestions.

二零二四年十一月七日，公司召開「賦能青年成長 助力企業發展」青年員工座談會，來自總部機關、各、分子公司的二十二名團員青年代表與京能國際一眾領導面對面會談，分享工作感悟與收穫，同時坦誠表達自身遇到的困惑，領導們對每位青年的問題和建議都給予了詳細解答。



The “Empowering Youth Growth and Assisting Corporate Development”  
symposium for young employees  
「賦能青年成長 助力企業發展」青年員工座談會

## BUILDING AN EQUAL AND DIVERSE TEAM

We always believe that the gathering of diverse talents can spark innovation and vitality. Therefore, we are committed to attracting talents of different genders, professions and education backgrounds to join the Company and create a diverse, inclusive and equal working environment for employees. As of the end of October 2024, the Group had more than 200 employees from 22 ethnic minorities, including but not limited to Bai, Manchu and Mongol people. Employees of all ethnic groups work together and cooperate for common prosperity in the Company.

We respect and protect the needs and rights of female employees. The Regulations on the Management of Labour Union Work clearly stipulate that female employees shall have equal rights with male employees in terms of, among others, politics, economy, education, labour and family. We care about the physical and mental health of female employees in daily work, including arranging regular medical examinations for female employees, strengthening female employees' health care and special protection during menstruation, and organising celebration and commendation activities during the "March 8<sup>th</sup>" Festival. The Company's Labour Union has established a Women's Committee to specifically safeguard the legitimate rights and interests of female employees and help them resolve their difficulties. Moreover, we have also promulgated internal policies on helping employees in need, with the objective of "not letting any employee's family live below the poverty line". We have established files for employees in need and implemented assistance measures such as hardship subsidies, striving to ensure that employees in need and vulnerable employees can gain corresponding respect and protection.

## 平等多元團隊建設

我們始終相信多元化的人才匯聚一堂能夠碰撞出創新與活力的火花，因此我們致力於吸引不同性別，不同專業和學歷背景的人才加入公司，為員工們創造多元、包容、平等的工作環境。截至二零二四年十月底，本集團共擁有超過二百位來自白族、滿族、蒙古族等二十二個少數民族的員工，各民族員工在公司齊心奮鬥，合作共榮。

我們尊重並保護女性職工的需求和權益，在《工會工作管理規定》中明確規定女性職工擁有與男性職工在政治、經濟、教育、勞動、家庭等方面的平等權利，在日常工作中關心女性職工的身心健康，包括定期進行女工體檢，加強女工保健和女性生理時期的特殊保護，在「三八」節進行慶祝和表彰活動等。公司工會已成立女工委員會，專門保障女性職工的合法權益，為她們排憂解難。此外，我們還出台了有關困難職工幫扶的內部政策，以「不讓一名職工家庭生活在貧困線以下」為目標，為困難職工建立檔案，落實困難補助資金等幫扶措施，竭力讓困難職工、弱勢員工獲得相應的尊重和保障。

Case:  
案例：

**“March 8” Women’s Day welfare activity**  
**「三八」女神節福利活動**

On 8 March 2024, we held a celebration for female employees at the Company’s headquarters to pay tribute to the power of women. Our North China branch and integrated energy company also held a variety of creative handicraft activities, where our female employees created what they want and enjoyed a pleasant time.

二零二四年三月八日，我們在公司總部為女性職工舉辦了一場慶祝活動，致敬「她」力量。華北分公司、綜能公司還舉辦了豐富多彩的創意手工創作活動，「她」們隨心創作，盡情享受一段愉悅時光。



The “March 8” Women’s Day welfare activity  
「三八」女神節福利活動



## EMPOWERING THE DEVELOPMENT OF OUTSTANDING TALENTS

The Group adheres to the talent philosophy of “stimulating individuality, enriching commonality, prioritising the capable ones, and achieving mutual success,” providing a platform and opportunity for the Company’s employees to showcase their talents, and creating different training programmes based on features such as job classification, scope of responsibilities and professional needs of each position. We have formulated and implemented internal policies such as the Measures for Training Management, the Measures for the Management of Talent Evaluation and Recommendation (Draft for Comments) and the Preparation Table for the 2024 Training Plan, thereby continuously enhancing the Company’s training system for improving employees’ personal competence and professional skills.

## 賦能卓越人才發展

本集團秉持「激發個性、豐富共性、能者為先、相互成就」的人才理念，為公司員工提供展示的平台和機會，根據各個崗位的職級分類、職責範圍、專業需求等特點打造不同的培訓項目。我們制定並實施《培訓管理辦法》、《人才評價及推薦任用管理辦法（徵求意見稿）》、《二零二四年培訓計劃編製表》等內部政策，不斷完善公司針對提升員工個人能力與專業技能的培養體系。



**General category**  
普通類

Comprising corporate culture, company’s development history, company’s policies and regulations, business management fundamentals, official document writing requirements, office software use, structured thinking, business manners, professionalism, and so on.

涵蓋企業文化、公司發展史、公司政策規定、企業管理基礎、公文寫作要求、辦公軟件使用、結構思維、商業禮儀和職業素養等



**Professional and technical category**  
專業技術類

Developing personal professional knowledge and skills, such as investment and development, product development, customer research, finance and capital, engineering and technology, strategic operations, human resources, legal and risk control, safety and environmental protection, and so on.

培養個人專業知識和技能，如投資與開發、產品開發、客戶研究、金融與資本、工程與技術、戰略運營、人力資源、法律及風險管控、安全與環保等



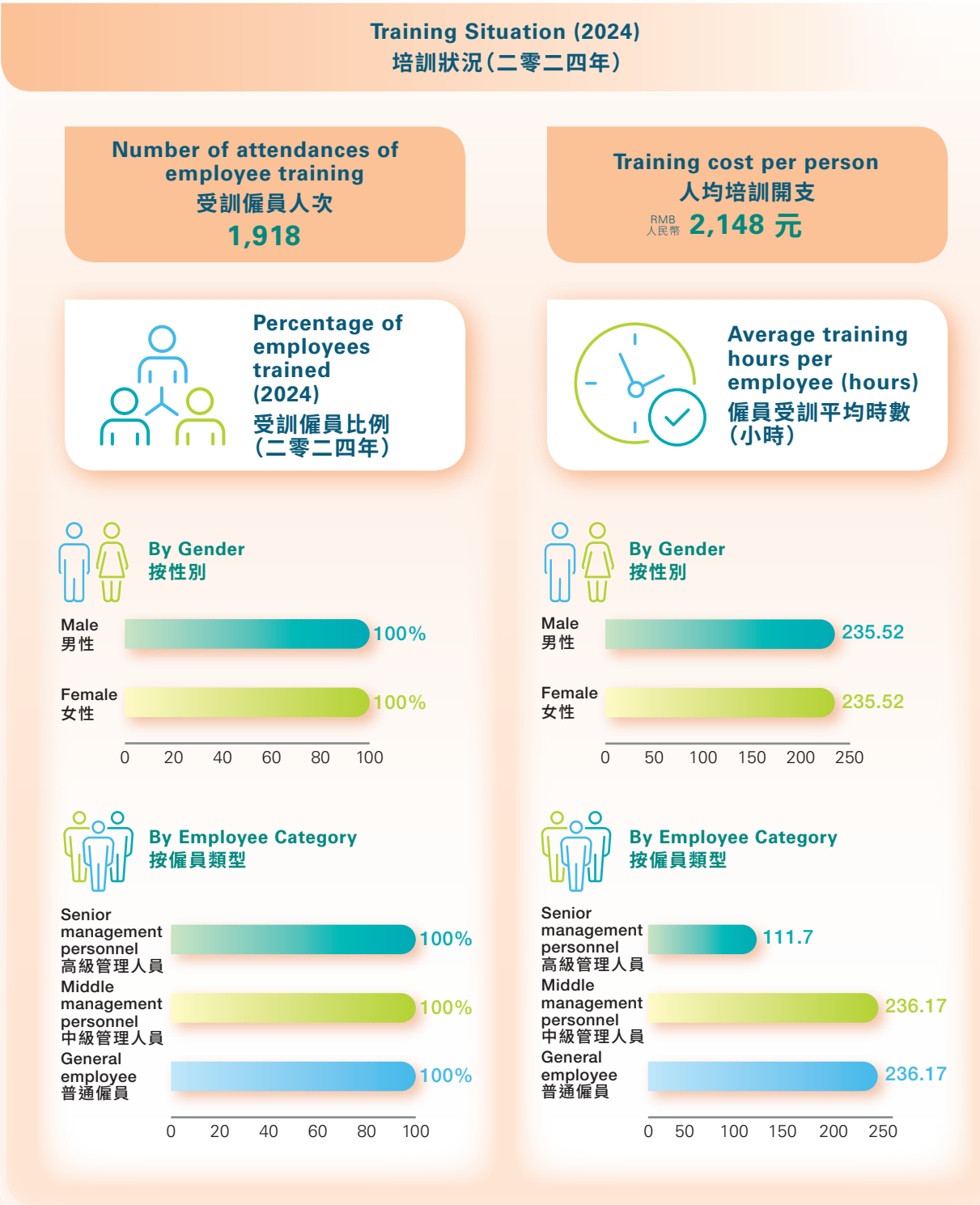
**Leadership management category**  
領導力管理類

Training on leadership, professional managers, management thinking, management methods and tools for different management levels.

針對不同管理層級開展有關領導力、職業經理人、管理思維、管理方法與工具等的培訓。

TRAINING CLASSIFICATION

培訓分類



## Training Methods

In order to further help employees improve their professional skills and enable them to broaden their horizons and expand their thinking while completing their daily work, the Group adopts a combination of internal and external methods to build a diversified training platform for employees, and encourages employees to actively participate in training in the form of cloud platforms and offline lectures, so as to learn and absorb fresh information and cutting-edge concepts inside and outside the industry in a timely manner and continuously improve their comprehensive quality.

We have established a “training officer” selection system within the Group and built a “learning cloud” platform, with an aim to stimulate employees’ enthusiasm for learning and enable them to continuously improve their careers by introducing high-quality courses from the Group’s professionals and external experts. Moreover, the Group insists on the training concept of “bringing in” and “going out” by actively cooperating with external organisations and selecting managers or professional staff for offline visits to learn advanced management experience and professional skills, and also by actively participating in industry competitions, forums, seminars and other activities to encourage employees to make continuous progress in the process of communicating with their peers, and rewarding employees with outstanding performance.

## 培訓方式

為進一步幫助員工提升專業技能，賦能員工在完成日常工作的同時擴寬眼界、拓展思路，本集團採用內部與外部結合的方式為員工搭建起多元化的培訓平台，鼓勵員工積極參加雲端平台和線下講座等形式的培訓，及時學習吸收行業內外的新鮮資訊和前沿理念，持續提升自身的綜合素質。

我們在集團內部設置「培訓官」選聘制度，並搭建「學習雲」平台，旨在通過引入集團專才和外部專家的優質課程，激發員工的學習熱情，賦能其職業生涯持續進步。此外，本集團堅持踐行「引進來」和「走出去」並重的培訓理念，主動與外部組織開展合作，選派管理人員或專業對口員工進行線下參訪，學習先進的管理經驗和專業技能；同時，我們也積極參與行業大賽、論壇宣講等活動，鼓勵員工在與同行的交流過程中不斷進步，並對表現優異的員工進行評優獎勵。

Case:  
案例：

**BJEI's "Enter Huawei" advanced training class officially commenced**  
**京能國際「走進華為」高研班正式開班**

On 5 August 2024, the "Enter Huawei" advanced training class officially commenced at Huawei's Sanyapo base in Dongguan. 45 middle and senior managers from the Company's headquarters and its affiliated companies participated in the training. The purpose of this activity is to learn management, operation and innovation experience from the world-class company, and to provide solid support and guarantee for the cultivation of a management team with strong comprehensive quality and robust ability to tackle difficulties.

二零二四年八月五日，「走進華為」高研班在華為東莞三丫坡基地正式開班，來自公司總部及所屬企業的四十五名中高層管理人員參加培訓。本次活動旨在向國際一流企業學習管理、經營、創新經驗，為培養一支綜合素質過硬、攻堅能力強健的管理團隊提供有力支撐和保障。



The "Enter Huawei" advanced training class  
「走進華為」高研班



**Case:  
案例：****We achieved outstanding results in the 15<sup>th</sup> National Electric Power Industry Vocational Skills Competition**  
**在第十五屆全國電力行業職業技能競賽中獲佳績**

On 27 September 2024, the finals of the 15<sup>th</sup> National Electric Power Industry Vocational Skills Competition (Operation and Maintenance for Photovoltaic Power Generation) came to a successful conclusion in Ulanqab, Inner Mongolia. The competition attracted 58 elite teams from electric power companies across the country. The Company won the second prize for individuals and the second and third prizes for groups, achieving the best results in the history of Beijing Energy Group's participation in photovoltaic vocational skills competitions.

二零二四年九月二十七日，第十五屆全國電力行業職業技能競賽（光伏發電運維）決賽在內蒙古烏蘭察布圓滿落下帷幕，本次競賽吸引了來自全國電力企業的五十八支精英隊伍，本公司榮獲個人二等獎與團體二等獎、三等獎，創造了京能集團光伏類職業技能競賽歷史最佳成績。



We won awards in the 15<sup>th</sup> National Electric Power Industry Vocational Skills Competition  
於第十五屆全國電力行業職業技能競賽中獲獎

## ENSURING THE HEALTH AND SAFETY OF EMPLOYEES

As a responsible clean energy supplier, we often face various types of health and safety risks in the daily operation of our business. To this end, we have formulated a series of internal policies on, among others, production safety, accident prevention and handling and occupational health, including the Regulations on Production Safety, the Measures for the Management of the Production Safety Responsibility System, the Regulations on the Management of Accident (Incident) Investigation, the Measures for the Management of Production Safety Emergency, the Regulations on the Management of Accident and Hazard Investigation and Control and the Regulations on the Management of Occupational Disease Prevention and Control, which have laid a foundation for the institutional protection of health and safety of the Company's employees.

### Health and Safety

The Group attaches great importance to the occupational health and safety of employees and regards it as an important foundation for the long-term development of the Company. We strictly comply with laws and regulations such as the Law of the People's Republic of China on Work Safety and the Prevention and Control of Occupational Diseases Law of the People's Republic of China, and adhere to the principles of "placing emphasis on prevention, standardising management, with employees performing their respective duties". We have stipulated in the Regulations on the Management of Occupational Disease Prevention and Control that occupational disease protection facilities should be designed, built and put into production at the same time as the principal part of the project, identify occupational disease hazards, promptly inform employees of potential occupational disease hazards, place signs in the workplace, provide protective equipment, and furnish employees with pre-job occupational health training and emergency response training.

## 保障員工健康與安全

作為一家負責任的清潔能源供應商，我們業務的日常運營過程中常需面對各種類型的健康與安全風險，為此我們制定了《安全生產工作規定》、《安全生產責任制管理辦法》、《事故（事件）調查管理規定》、《安全生產應急管理辦法》、《事故隱患排查治理管理規定》、《職業病防治管理規定》等一系列有關安全生產、事故預防與處理、職業健康等內部政策，為保障公司員工的健康與安全奠定了制度保障基礎。

### 安全與健康

本集團高度重視員工的職業健康與安全，將其視為公司長期發展的重要基礎，我們嚴格遵守《中華人民共和國安全生產法》和《中華人民共和國職業病防治法》等法律法規，堅持「預防為主，規範管理，各司其職」的原則底線。我們在《職業病防治管理規定》中規定，職業病防護設施應採取與主體工程同時設計、同時施工、同時投入生產的「三同時」原則，識別職業病危害因素，及時告知員工可能存在的職業病危害，並在工作場所進行標識，提供保護設施，對員工進行崗前職業衛生培訓和應急處理能力培訓。

## Safety Management System

The Group has established a comprehensive production safety management system based on the concept of “prioritising safety first, placing emphasis on prevention, and implementing comprehensive management”. At the Group’s headquarters and its branches and subsidiaries, we have established production safety committees at all levels, under which production safety committee offices are in place. The principal responsible persons of the relevant businesses are responsible for leading and supervising the implementation of the Company’s safety management policies. The Regulations on Production Safety of BJEI has clearly stipulated key tasks such as safety risk prevention and control, accident and hazard investigation and control, major hazard source management, special equipment safety management and occupational disease prevention and control. Effective management rules and supportive supervision measures are implemented in the business areas involved to ensure that safety accident loopholes are blocked and that the health and safety of employees are safeguarded.

## The Group’s Production Safety Responsibility System

The Group has formulated the Measures for the Management of the Production Safety Responsibility System to specify the production safety responsibilities of each department and unit. We have implemented the production safety responsibility system for all employees, under which “every employee at every level shall bear their own responsibilities”. Through the four-tier control system, we clearly assign safety responsibilities to our branches, subsidiaries, sites, teams and individuals, so as to apportion safety risks and strive to prevent accidents in the production process of various businesses of the Company. Moreover, the Group has implemented the Measures for the Management of Reward and Punishment on Production Safety, with an aim to reward and commend groups or individuals who conscientiously fulfil their production safety responsibilities, and to hold those responsible for safety accidents accountable and punish them in accordance with the requirements, so as to guide employees to establish safety awareness in their daily work and improve the level of production safety.

## 安全管理體系

本集團圍繞「安全第一、預防為主、綜合管理」理念，搭建起全面的安全生產管理體系，在集團總部和各分、子公司成立各級安全生產委員會（安委會），設立安全生產委員會辦公室（安委會辦公室），由相關業務主要負責人領導負責領導、監督公司的安全管理政策的落地執行。《安全生產工作規定》中對安全風險預控、事故隱患排查治理、重大危險源管理、特種設備安全管理、職業病防治等重點工作進行了明確規定，對業務涉及領域實施有效管理制度並配套監督措施，確保堵住安全事故漏洞，保障員工的健康安全。

## 本集團的安全生產責任制

本集團制定《安全生產責任制管理辦法》以明確各部門單位的安全生產責任，我們實施「層層負責、人人有責、各負其責」的全員安全生產責任制，通過四級控制體系，我們把安全責任明確分配到分、子公司、場站、班組以及個人，分攤安全風險，力爭在公司各項業務生產過程中防患於未然。此外，本集團實施《安全生產獎懲管理辦法》，對認真履行安全生產責任的集體或個人進行獎勵和表彰，對安全事故負有責任的人員按照規定進行問責和處罰，引導員工在日常工作中樹立安全意識，提高安全生產水平。

## The Group's Production Safety Risk Prevention and Control Process

The Group is fully aware of the importance of prevention and control from the source to production safety, and has formulated and implemented the Regulations on the Management of Safety Risk Prevention and Control, requiring relevant personnel to carry out risk prevention and control management in seven aspects, including risk identification, risk assessment, risk classification and control, risk notification, monitoring and early warning, information and communication and continuous improvement, under the supervision and guidance of the Safety Risk Prevention and Control Leading Group, and to promptly record, inspect and evaluate the risks to ensure that safety risks are always under control.

We have also formulated the Regulations on the Management of Accident and Hazard Investigation and Control, requiring all branches and subsidiaries to regularly carry out routine hazard investigation, comprehensive hazard investigation and special hazard investigation according to the Company's overall deployment and own business characteristics, file and classify the hazards, and carry out monitoring, prevention and rectification in a timely manner. We will handle the statistical data, special safety information, production accidents and sudden environmental incidents compiled from the safety investigation as soon as practicable, and report them in accordance with the Regulations on the Management of Production Safety Information Submission. Moreover, we also conduct graded supervision, classified supervision and precise supervision of safety risks every year based on functional positioning, risk level and special work. Through dynamic and cyclical investigation, we thoroughly clear the blind spots of risks to maintain continuous and stable production activities. During the Year, the Group investigated a total of 1,530 issues, with a rectification rate of 100%.

## 本集團的安全生產風險防控流程

本集團深知源頭防控之於安全生產的重要意義，制定並實施《安全風險預控管理規定》，要求相關人員在安全風險預控領導小組的監督指導下開展包括風險辨識、風險評估、風險分級管控、風險告知、監測與預警、信息與溝通及持續改進等七個方面的風險預控管理工作，及時進行記錄和檢查考核，確保安全風險始終可控。

我們還制定了《事故隱患排查治理管理規定》，要求各分、子公司根據公司總體部署和自身業務特點，定期開展常規隱患排查、全面隱患排查和專項隱患排查，做好登記和定級，及時開展監控防範和整治活動。對於安全排查整理出的統計數據、安全專項信息、生產事故與突發環境事件，我們會第一時間進行處理，並按照《安全生產信息報送管理規定》進行上報。此外，我們每年還會根據職能定位、風險程度及專項工作對安全風險進行分級監管、分類監管和精準監管，通過動態、循環的排查看行，徹底掃清風險盲區，維持生產活動持續平穩開展。本年度，本集團共排查1,530項問題，整改率為100%。



## Strengthening Production Safety

The Group strictly complies with laws and regulations such as the Production Safety Law of the People's Republic of China, and has compiled the management policy of fine, precise, accurate, lean and exquisite management. We set production safety targets every year and monitor the implementation progress to ensure that our safety management measures are effectively implemented.

### Production Safety Objectives for 2024



#### Objectives 目標

- (1) To eliminate major or above production safety accidents, and effectively curb general accidents to achieve "zero fatalities".  
杜絕重大或以上安全生產事故，有效遏制一般事故，實現「零死亡」。
- (2) The regular detection rate of occupational hazard factors in the workplace to reach 100%.  
工作場所職業性危害因素定期檢測率達100%。
- (3) The occupational health examination rate of personnel exposed to hazards to reach 100%.  
接觸危害因素人員的職業健康檢查率達到100%

## 加強安全生產

本集團嚴格遵守《中華人民共和國安全生產法》等法律法規，總結出精細管理、精準管理、精確管理、精益管理及精美管理的「五精」管理方針，每年設置安全生產目標並監控實施進度，確保我們的安全管理措施有效執行。

### 二零二四年安全生產目標



#### Completion Status 完成情況

- (1) No major or above safety accidents occurred during the Year, achieving "zero fatalities". The Group has achieved zero occupational accidents for ten consecutive years.  
本年度未發生重大或以上安全事故，實現「零死亡」。本集團已連續十年實現零職業事故。
- (2) The Group achieved the two 100% rate targets and conducted tests for occupational hazards.  
本集團已完成兩項檢測率100%目標，並已進行職業性危害檢測。

## Reinforcing the Safety Foundation

In order to further reinforce the safety foundation of the Group and support the implementation of various safety management measures, we have formulated regulations and rules such as the Regulations on the Management of Safety Cost, the Measures for the Management of Safety of Outsourced Units, the Regulations on the Management of Safety of Special Equipment and the Regulations on the Management of Overseas Production Safety. We have delineated standard operating procedures for many detailed matters and relied on our safety management information system for management to facilitate the implementation and evaluation efficiency of safety work.

## Preventing Safety Risks

The Group has strictly implemented the State Council's Decision on Further Strengthening Production Safety, established and improved the production safety responsibility system for senior management, promoted innovation in safety technology and regulatory system, focused on prevention from the source and emergency response, and has always been prepared for danger to build a strong awareness of production safety. During the Year, the Group deployed hazard management modules in existing business segments in terms of, among others, photovoltaic components, fire hazards and wind turbine hoisting using the Company's production management system, standardised the closed-loop full-process management of hazard rectification, sorted out various hazards, and improved the standards for inbound and outbound hazards. A total of 1,585 inbound and outbound hazards were found during the Year.

## Strengthening Process Monitoring

The Group believes that process monitoring also plays an important role in production safety. We have implemented policies such as the Measures for Safety Inspection Management to strengthen production safety process management, and incorporated hazard investigation, emergency training and drills and the implementation of the responsibility system as subjects of standardised management, and conduct regular inspections several times a year. Moreover, we also arrange raid inspections and random checks on work sites, and require each project to conduct emergency drills according to seasonal characteristics, thereby always sticking to the red line of production safety awareness. During the Year, the Group conducted 4 production safety training sessions to enhance employees' safety awareness.

## 夯實安全基礎

為了進一步完善本集團安全基礎，支持各類安全管理措施落到實處，我們制定了《安全費用管理規定》、《外委單位安全管理辦法》、《特種設備安全管理規定》、《境外安全生產管理工作規定》等規章制度，對諸多細節內容劃定了標準作業程序，依托我們的安全管理信息系統進行管理，促進安全工作的實施和評估效率。

## 防範安全風險

本集團嚴格落實國務院《關於繼續加強安全生產工作的決定》，建立健全領導幹部安全生產責任制，推進安全科技和監管體制的創新，聚焦源頭防治和應急處理，居安思危，築牢安全生產意識。本年度，本集團對光伏原件、火災隱患、風機吊裝等多個領域對現有業務板塊利用公司生產管理系統部署隱患管理模組，規範隱患整改閉環全流程管理，梳理各項隱患，提高隱患出入庫標準，全年查出入庫隱患1,585項。

## 加強流程監控

本集團認為流程監控同樣對安全生產有重要作用，我們實施《安全巡查管理辦法》等政策加大生產安全流程管理力度，將隱患排查、應急培訓演練情況、責任制度落實情況等內容列入標準化管理對象，每年定期進行多次巡查。此外，我們還會安排工作現場安全突擊檢查和抽查，要求各工程項目按照季節特點進行應急演練，時刻繃緊安全生產的意識紅線。本年度，本集團進行了4場生產安全學習培訓，以提升員工的安全意識。

## Promoting Safety Culture

The Group actively carries out various forms of cultural promotion and training to facilitate employees in establishing safety awareness in their daily work and help them in effectively combining safety theory with practical work, so as to achieve the effect of stimulating subjective initiative to avoid production safety accidents. Therefore, we have specially formulated the Regulations on the Management of Production Safety Education and Training and the Measures for the Management of Production Safety Emergency to facilitate employees' understanding of safety theory through a variety of training and emergency drills. During the Year, the Group and its affiliated companies conducted 1,118 emergency rescue drills for safety accidents, with 25,895 attendances recorded for occupational health and safety education training, achieving an employee safety training coverage of 100% with 51,000 total training hours. During the Year, 5,362 attendances were recorded for the production safety test provided by the Group's online "Training Management System" as an assessment of their safety knowledge learning.

## 安全文化宣傳

本集團積極開展多元形式的文化宣傳和培訓，以幫助員工在日常工作中樹立安全意識，並幫助其將安全理論與現實工作有效結合，從而達到激發主觀能動性避免安全生產事故的效果。因此，我們專門制定了《安全生產教育培訓管理規定》、《安全生產應急管理辦法》等，通過豐富的培訓與應急演練活動促進員工對安全理論的理解。本年度本集團及聯屬企業公開站安全事故應急救援演練1,118次，共有25,895人次進行職業安全與健康教育培訓，員工安全培訓覆蓋率達100%，總培訓時數達51,000小時。本年度共有5,362人次參加了本集團線上「培訓管理系統」提供的安全生產考試，作為其學習安全知識的評估。

**Case:  
案例：**

**We launched a series of activities for the “Production Safety Month”  
開展「安全生產月」系列活動**

June 2024 was the 23<sup>rd</sup> National “Production Safety Month”, during which the Group actively responded to the safety theme that “everyone talks about safety and everyone can respond to emergencies – unblocking the channel of life safety”. All of our branches and subsidiaries carried out various forms of activities including, among others, knowledge contests, public lectures, safety knowledge experience learning, warning education film production and emergency disaster drills, in order to facilitate employees’ production safety learning and effectively enhance employees’ safety awareness and safety performance capability.

二零二四年六月，第二十三個全國「安全生產月」如期而至，本集團積極響應「人人講安全、各個會應急——暢通生命通道」的安全主題，各分子公司開展包括知識競賽、群眾宣講、安全知識體驗學習、警示教育片製作、應急災害演練等多種形式的活動，推動員工安全生產學習，切實提升員工安全意識和安全履職能力。



Our Qinghai Gonghe Power Plant offered on-site education for the public  
青海共和電站面向群眾現場宣教



Our North China branch held a knowledge contest for the “Production Safety Month”  
北方分公司開展「安全生產月」知識競賽



Our Yunnan Yongren Power Plant carried out an emergency drill for falls from height  
雲南永仁電站開展高處墜落應急演練



Our Sichuan Luhuo Power Plant popularised safety knowledge for the public  
四川爐霍電站為群眾普及安全知識



**Case:  
案例：****Our production safety training (4<sup>th</sup> phase) was held at the Datong Panda Training Centre  
大同熊貓培訓中心舉辦第四期安全生產培訓**

In November 2024, our 2024 production safety training (4<sup>th</sup> phase) was successfully held at the Datong Panda Training Centre. The training covered various aspects including, among others, safety management, two-invoice management, the Beijing Energy intelligent training system, operations management and environmental protection, and was taught in combination with the issues found in the previous safety inspections of the Company.

二零二四年十一月，二零二四年第四期安全生產培訓在大同熊貓培訓中心順利舉辦。本次培訓內容涵蓋安全管理、兩票管理、京能智培系統、運行管理、環境保護等多個方面，結合公司歷次安全巡查發現的問題進行講解。

Production safety training (4<sup>th</sup> phase) at  
the Datong Panda Training Centre  
大同熊貓培訓中心第四期安全生產培訓

**Safeguarding Occupational Health**

The Group adheres to the occupational health concept of “placing emphasis on prevention, and combining prevention and control”, strictly complies with laws and regulations such as the Prevention and Control of Occupational Diseases Law of the People’s Republic of China and the Labour Law of the People’s Republic of China, and has improved the occupational disease prevention and control system by formulating and implementing rules such as the Regulations on the Management of Occupational Disease Prevention and Control, with an aim to provide employees with a healthy and harmonious working environment. Every year, we arrange medical examinations for employees, who can make appointments on their own to participate in it. Through this, we provide care for the physical and mental health of employees, and help them resolve their worries. Moreover, the Group has engaged a qualified third-party company to conduct occupational environment inspections on power plants, identify occupational hazard factors such as noise, toxic substances and dust, take targeted preventive measures, and provide protective equipment such as goggles, dust masks and earplugs for employees who are within the scope of occupational hazard factors, so as to minimise the occupational health risks of employees.

**保障職業健康**

本集團堅持踐行「預防為主、防治結合」的職業健康觀念，嚴格遵守《中華人民共和國職業病防治法》、《中華人民共和國勞動法》等法律法規，通過制定實施《職業病防治管理規定》等制度完善職業病防治體系，為員工提供健康和諧的工作環境。我們每年都會組織員工開展健康體檢工作，員工可自行進行預約參加，關心員工的身心健康，並幫助他們解決後顧之憂。此外，本集團聘請合資質的第三方公司對電站進行職業環境檢測，對職業危害因素進行識別，如噪聲、有毒物質、粉塵等，針對性採取預防措施，並為處於職業危害因子影響範圍內的員工提供護目鏡、防塵口罩、耳塞等防護用品，支持員工盡可能降低職業健康風險。

Case:  
案例：

**Our Jiayuguan Power Plant carried out the health publicity and training on prevention and control of occupational diseases for 2024**  
**嘉峪關電站二零二四年職業病健康防治宣傳培訓**

On 23 April 2024, our Gansu Jiayuguan Power Plant carried out the themed educational training on “Caring for Life, Rescue at Your Side”, introducing cardiopulmonary resuscitation, cerebral infarction, myocardial infarction and other sudden cardiovascular and cerebrovascular diseases and their emergency rescue methods, as well as healthy lifestyles, to further enhance the health and safety protection awareness of the senior management and employees.

二零二四年四月二十三日，甘肅嘉峪關電站開展以「關愛生命『救』在身邊」的主題教育培訓，針對心肺復甦、腦梗、心梗等心腦血管突發疾病和應急處理方式，以及健康生活方式進行介紹，進一步提升廣大幹部職工安全健康防護意識。



**Case:  
案例：****Our Gaoyou Power Plant carried out an emergency drill for thermal runaway accidents of batteries in the energy storage power station  
高郵電站開展儲能電站電池熱失控事故應急演練**

On 24 September 2024, our 100MW photovoltaic power plant in Gaoyou, Jiangsu Province, organised an emergency drill for thermal runaway accidents of batteries in the energy storage power station. By simulating a fire in the energy storage area, the drill trained the emergency, business and functional staff in handling emergencies, and improved the pertinence, practicality and operability of contingency plans, thereby ensuring the safety of personnel and facilities in the power plant.

二零二四年九月二十四日，江蘇高郵100兆瓦光伏電站組織開展儲能電站電池熱失控事故應急演練，通過在儲能區模擬起火的方式，鍛煉各應急崗位、業務崗位和職能崗位對突發事故處理的能力，提高應急預案的針對性、實用性和可操作性，保障電站人員和設施安全。



Emergency drill for thermal runaway accidents of batteries in the energy storage power station of our Gaoyou Power Plant  
高郵電站儲能電站電池熱失控事故應急演練實況





## Key Work of Occupational Disease Prevention and Control for 2024

## 二零二四年職業病防治重點工作



### General management 一般管理

To improve the occupational disease prevention and control management system and assessment index system to promote the full implementation of occupational disease prevention and control work.

完善職業病防治管理體系和評估指標體系，促進職業病防治工作的全面落實。

To strictly implement the simultaneous design, simultaneous construction and simultaneous operation of occupational disease prevention facilities and principal works in new construction, reconstruction and expansion projects.

在新建、改建及擴建項目中，嚴格執行職業病防護設施和主體工程同時涉及、同時施工及同時運行制度。

To carry out activities such as the publicity week of the Prevention and Control of Occupational Diseases Law of the People's Republic of China in 2024 to improve the popularity rate of occupational health knowledge among employees.

於二零二四年開展《中華人民共和國職業病防治法》宣傳周等活動，提高僱員職業衛生知識普及率。

To continuously carry out the establishment of a "Healthy Enterprise" and invite experts to give talks on psychological counselling.

持續開展「健康企業」創建活動，邀請專家進行心理諮詢講座。



### Site management 現場管理

To improve the existing dust suppression and noise prevention technologies to enhance the effect of protective facilities.

改進現有的抑塵防噪技術，提高防護設施的效果。

To implement the measures of "replacement by mechanisation and reduction by automation", and upgrade and transform the production system to improve production intelligence.

落實「機械化換人、自動化減人」措施，對生產系統進行升級改造，提高生產智能化水平。

To carry out occupational hazard factor detection at least once a year and occupational hazard status assessment at least once every three years.

每年至少進行一次職業性危害因素檢測，每三年至少進行一次職業性危害狀況評估。

To distribute personal protective equipment regularly and sufficiently, and improve the comfort, effectiveness and safety of protective equipment.

定期、充分發放個人防護用品，提高防護用品的舒適性、有效性及安全性。



**Monitoring and filing****監察與備案**

To organise health and safety inspections for new employees before they start working and for old employees before they leave office.

組織進行新僱員入職前和老僱員離職前的健康與安全檢查。

To fully consider the physical condition of employees and arrange their work reasonably.

充分考慮僱員身體狀況，合理安排工作。



To pay workers' compensation insurance in full and on time.

按時足額繳納工傷保險。

To carry out occupational health examinations for all employees exposed to occupational hazards.

對所有接觸職業性危害的僱員進行職業健康檢查。



To improve the management ledger of "one file for one person" for personnel with occupational disease and strengthen protection and treatment.

完善職業病人員「一人一檔」的管理台賬，加強防護和治療。

Operate with Excellence and  
**Strive for**  
**World-Class Performance**

卓越運營 力爭國際一流



Quality and safety has always been one of the Group's key concerns. By improving the quality management system, we focus on the environmental and social impacts of wind and photovoltaic power generation as well as energy storage and other engineering construction projects throughout their life cycle, striving to provide customers with stable power supply services. At the same time, the Group actively implements regulatory measures in terms of information privacy and data security, innovative technology and intellectual property rights, and upholds the spirit of "pursuing practical results with technological innovation, and achieving future success with digital empowerment," so as to drive the high-quality development of the enterprise with excellent service quality.

質量安全一直是本集團關注的重點之一。通過完善質量管理體系，我們聚焦風電、光伏發電、儲能等工程建設項目全生命週期的環境和社會影響，致力為客戶帶來穩定的供電服務。同時，本集團積極落實在信息隱私及數據安全、創新技術和知識產權方面的規範措施，秉持「科技創新求實效、數字賦能贏未來」的精神，以卓越服務品質驅動企業的高質量發展。

#### KPIs:

#### 關鍵績效指標：



Authorised patents:

已獲授權專利：

**5** 項

Software copyrights and patents:

軟件著作權專利：**47** 項

## REINFORCING AND ENHANCING THE LONG-TERM MECHANISM

### Quality Management System

The Group strictly complies with laws and regulations on engineering construction standards and specifications, such as the Construction Law of the People's Republic of China, the Law of the People's Republic of China on Work Safety and the Law of the People's Republic of China on Product Quality. Adhering to the concepts that "a project of vital and lasting importance calls for excellent quality" and that "infrastructure serves to facilitate production and operation", we have formulated internal documents such as the Regulations on the Management of Engineering Construction, the Measures for Engineering Quality Management and the Measures for the Management of Engineering Safety and Civilised Construction, with an aim to clarify the specific work responsibilities, supervision priorities and management processes of each department and project leader in the design, development and operation stages of engineering construction projects, thereby standardising the management mechanism of the Group's projects throughout their life cycle. During the Year, the Group did not identify any violation in terms of construction quality and safety.

To ensure the quality of engineering construction, before a project starts, the engineering management department is responsible for setting quality control targets, and each branch, subsidiary and infrastructure project is responsible for establishing a quality management system, compiling management rules, implementing feasible guarantee measures and supervising the implementation of each project, so as to ensure the stable and safe long-term operation upon handover to production.

According to the Measures for Engineering Quality Management of the Group, all activities relating to engineering construction quality shall comply with relevant national and industry laws, regulations and standards. In order to fully implement quality management, we have divided the management measures into four aspects, namely survey and design quality, equipment and material quality, construction quality, and commissioning quality.

## 穩固健全長效機制

### 質量管理體系

本集團嚴格遵循《中華人民共和國建築法》、《中華人民共和國安全生產法》、《中華人民共和國產品質量法》等有關工程建設標準規範的法律法規，遵循「百年大計、質量第一」和「基建為生產經營服務」的理念，制定了《工程建設管理規定》、《工程質量管理辦法》、《工程安全文明施工管理辦法》等內部文件，明確各部門和項目負責人在工程建設項目的設計、開發、運營等階段的具體工作職責、監管重點和管理流程，從而規範本集團項目全生命週期的管理機制。本年度，本集團未發現任何施工質量安全方面的違規情況。

為確保工程建設的質量，在項目開工前，工程管理事業部負責制定質量控制目標，各分、子公司以及各基建項目負責建立質量管理制度，編製管理細則，落實可行的保證措施並監督各項目實施，從而確保移交生產後長期穩定安全的運行。

根據本集團《工程質量管理辦法》，工程建設的所有質量活動應遵守國家、行業相關的法律法規和標準。為全面落實質量管理，我們細分了在勘察設計、設備材料質量、施工質量以及調試質量這四個方面的管理辦法。





### Management of survey and design quality 勘察設計質量管理

- The survey and design unit must possess design qualification level certificates  
勘察設計單位須具備設計資質等級證書
- Contracts must clearly specify quality targets and requirement  
合同須明確規定質量目標和要求
- Survey and design work must be carried out in strict accordance with national and industry standards, procedures, specifications and regulations  
須嚴格按照國家和行業標準、規程、規範、規定開展勘察設計工作
- All survey and design documents must be certified, reviewed and signed  
所有勘察設計文件須認證校審和核簽



### Management of construction quality 施工質量管理

- A construction quality management system and standards should be established and implemented  
建立並落實施工質量管理體系和標準
- The design of construction organisation should meet the quality needs of engineering construction  
施工組織設計應滿足工程施工質量需要
- Technical training should be organised for operators, who shall be required to possess the relevant certificates before taking up their posts  
組織作業人員技術培訓，要求持證上崗
- Quality inspections at all stages and processes should be strengthened, and self-inspections and inspections by the supervision unit should be arranged  
加強各個環節和工序的質量檢查，進行自檢和接受監理單位檢查
- Quality management status and engineering quality status should be reported regularly to the infrastructure project department and the supervision unit every week  
每週定期向基建項目部和監理單位報告質量管理情況和工程質量狀況
- Quality control of raw materials and testing and inspection of materials should be strengthened  
加強原材料的質量控制和材料的試驗與檢驗
- A construction quality archive should be established  
建立施工質量檔案



### Management of equipment and material quality 設備、材料質量管理

- Tenderers should be reviewed during procurement, and relevant terms should be clearly stated in the contracts  
採購時應對招標商進行審查，合同中應明確相關要求條款
- A qualified supervision unit should be selected, and problematic materials should be strictly prohibited  
選擇有資質能力的監造單位，嚴禁問題材料
- Packaging and transportation of equipment and materials should be ensured  
確保設備和材料的包裝和運輸工作
- Warehouses should be set up with experienced warehouse managers to establish a complete warehousing responsibility system  
設立倉庫並配備有經驗的倉儲管理員，建立完善的保管責任制
- A complete information management archive should be established  
建立完善的信息管理檔案



### Management of commissioning quality 調試質量管理

- The unit that contracts the project commissioning must possess the corresponding qualifications and similar project performance  
承包工程調試的單位須具有相應資質和同類工程業績
- The commissioning outline and plan should be prepared according to the characteristics of the project  
應針對工程特點編製調試大綱和方案
- The relevant regulations on production and operation of the Company must be strictly followed during the commissioning and trial operation  
調試試運行過程中必須嚴格執行公司生產運行的相關規定

## Quality Supervision and Inspection

In order to stabilise project quality and enhance service efficiency, BJEI has implemented internal documents on quality control and technical supervision, such as the Measures for Technical Supervision Management, the Regulations on the Management of Equipment Repair and Maintenance, the Regulations on the Management of Technical Transformation and the BJEI Engineering Infrastructure Inspection Checklist, and enforced the “Two Invoices and Three Systems” inspection management method, with an aim to ensure that all operations are in compliance with the safety and quality standards and requirements of the Group.

## 質量監督檢查

為穩定項目質量並提升服務效率，京能國際落實了《技術監督管理辦法》、《設備檢修維護管理規定》、《技術改造管理規定》、《京能國際工程基建巡檢清單》等有關質量控制和技術監督的內部文件，並實行「兩票三制」的檢查管理辦法，確保一切操作符合本集團的安全質量標準和要求。

**Two Invoices  
兩票****"Work Invoice"  
Management  
「工作票」管理**

The "Work Invoice" shall be used in inspection and rectification, defect elimination, maintenance, testing and installation, listing the name and serial number of the equipment, work content and safety measures

「工作票」需於檢修、消缺、維護、試驗及安裝等工作中使用，列明設備名稱及編號、工作內容及安全措施等內容

**"Operation Invoice"  
Management  
「操作票」管理**

The operators of photovoltaic power plants shall fill in the "Operation Invoice" to record contents such as operation tasks and steps

光伏電站操作員需填寫「操作票」，記錄操作任務、操作步驟等內容

**Three Systems  
三制****"Shift-Over System"  
「交接班制」**

The on-shift personnel is required to pay attention to patrol inspection, review the records of the shift-over personnel, and understand in detail the causes, processes and solutions of various events during the off-shift period

要求接班人員重視巡檢、查閱交班人員記錄，並詳細了解休班期間發生各類事情的原因、過程及解決措施

**"Equipment Patrol  
Inspection System"  
「設備巡迴檢查制」**

It specifies that all production, safety, technical and management personnel shall have the responsibility to inspect the equipment; and that the operation personnel on duty are required to conduct a comprehensive and careful patrol inspection of all equipment and systems under their duties

明確所有生產、安全、技術及管理人員都有對設備運行巡檢的責任；要求運行值班人員對所轄的所有設備及系統進行全面且仔細的巡檢

**"Equipment Periodic Test  
Rotation System"  
「設備定期試驗輪換制」**

The standby equipment are regarded as operating equipment, and defects should be actively dealt with to make them in good condition

視備用設備為運行設備，積極處理缺陷，使其處於良好狀態

## “Two Invoices and Three Systems” Inspection Management Method

To further ensure project quality and safety performance at construction sites, the engineering management department is responsible for formulating and assessing quality assessment targets for infrastructure projects, conducting internal inspections and assessments on compliance with standards and work excellence, organising and convening major quality-related special meetings, and participating in the analysis, investigation and handling of causes of major quality defects and quality accidents. If we receive any complaints during a project, we will arrange the corresponding departments according to the contractor's demands and negotiate a solution based on national laws, industry standards and the terms of the contract signed by both parties. In 2024, we did not receive any complaints regarding our projects.

## 「兩票三制」檢查管理辦法

為進一步保障項目質量和施工現場的安全表現，工程管理部負責制定並考核基建項目的質量考核目標，對達標投產及創優工作進行內部檢查評估，組織召開重大質量專題會，參加對重大質量缺陷、質量事故的原因分析、調查、和處理。如在工程間接獲投訴，我們將依據承包商的訴求組織對應的部門，根據國家法律、行業標準及雙方簽署的合同條款協商解決。2024年度，我們沒有接收到任何有關工程項目的投訴。

### Construction Projects 建築工程

- 100% pass rate of inspection lot, sub-divisional work and divisional work  
檢驗批、分項、分部工程合格率 100%
- 100% pass rate of unit work acceptance  
單位工程驗收合格率 100%
- Excellent visual quality of buildings  
Installation Projects  
建築觀感質量優良

### Installation Projects 安裝工程

- 100% pass rate of sub-divisional work and divisional work  
分項、分部工程合格率 100%
- 100% pass rate of unit work  
單位工程合格率 100%



## Quality Management Objectives

Our Regulations on the Management of Engineering Construction stipulate that the infrastructure project department shall be responsible for monitoring the quality of the construction process, organising phased engineering quality supervision, inspection and acceptance, and conducting weekly engineering quality meetings to arrange various management tasks and organise the rectification of any existing quality issues. Moreover, the Group's quarterly technical supervision professional meetings provide systematic guidance and scrutiny for technical inspection and supervision work to ensure that technical supervision can be fully integrated into daily production and that any potential construction quality and safety risks can be effectively avoided. For the acceptance of equipment and projects, we require the supervision unit and the acceptance working group to conduct quality assessment and testing in accordance with the existing international, industry and company specifications and standards to ensure that any issues in the acceptance can be properly handled and rectified.

## 質量管理目標

我們的《工程建設管理規定》規定基建項目部負責對施工過程質量進行監控，組織階段性的工程質量監督和檢查驗收，並開展工程質量周例會以安排各項管理工作，並就存在的任何質量問題組織整改。此外，本集團的季度技術監督專業會為技術核查監督工作提供了系統化的指導和梳理，以確保技術監督能充分融入日常的生產工作中，確保有效規避任何潛在的施工質量安全風險。對於設備和工程的驗收，我們要求監理單位和驗收工作小組按照國際、行業、公司現行規範和標準進行質量評定和試驗，以確保驗收中存在的問題可以得到妥善的處理和整改。

### Case: 案例：

### Safety assessment for non-electric power enterprises 非電力企業安全性評價工作

In order to implement the requirements of the State Council, Beijing Municipality and Beijing Energy Group on improving the safety management system in the three-year action plan for tackling the root causes of production safety issues, in September 2024, we compiled and issued the Regulations on the Management of Safety Assessment for Non-Electric Power Enterprises, pursuant to which, we carried out safety assessment for non-electric power enterprises for the first time, with an aim to help non-electric power enterprises fully and systematically understand their own safety status, conduct qualitative and quantitative analysis of the hazard factors in their daily business activities, assess the possibility and severity of system hazards, and propose scientific and reasonable rectification measures.

為貫徹落實國務院、北京市和京能集團安全生產治本攻堅三年行動完善安全管理體系的要求，二零二四年九月，我們編製印發了《非電力企業安全性評價管理規定》，針對非電力企業首次展開了安全性評價工作，旨在助力非電力企業全面、系統地了解自身安全狀況，對日常經營活動存在的危險因素進行定性、定量分析，評估系統發生危險的可能性及嚴重程度，提出科學合理的整改措施。

## SAFEGUARDING INFORMATION PRIVACY AND SECURITY

The Group strictly complies with laws and regulations related to data security, such as the Computer Information System Security Protection Regulations of the People's Republic of China and the Regulations on the Security Protection of Power Monitoring Systems, and has promulgated and implemented internal rules such as the Measures for the Management of Information System Construction, the Measures for the Management of Network and Information Security, the Measures for the Implementation of the Network Security Responsibility System and the Measures for the Management of Overseas Network Information and Data Security, thereby improving the confidentiality management system to continuously strengthen the management of network information and data security.

We have implemented a network security responsibility system. The production safety department, which is directly responsible for risk control in the process of network and information security management, is responsible for supervising, inspecting and assessing the implementation of information confidentiality management, recording data analysis, forming security audit reports, and holding regular special meetings to deploy and resolve any security issues. The digital information centre is responsible for organising a company-wide network security evaluation and assessment every year to standardise the information system construction standards and enhance the level of enterprise information management.

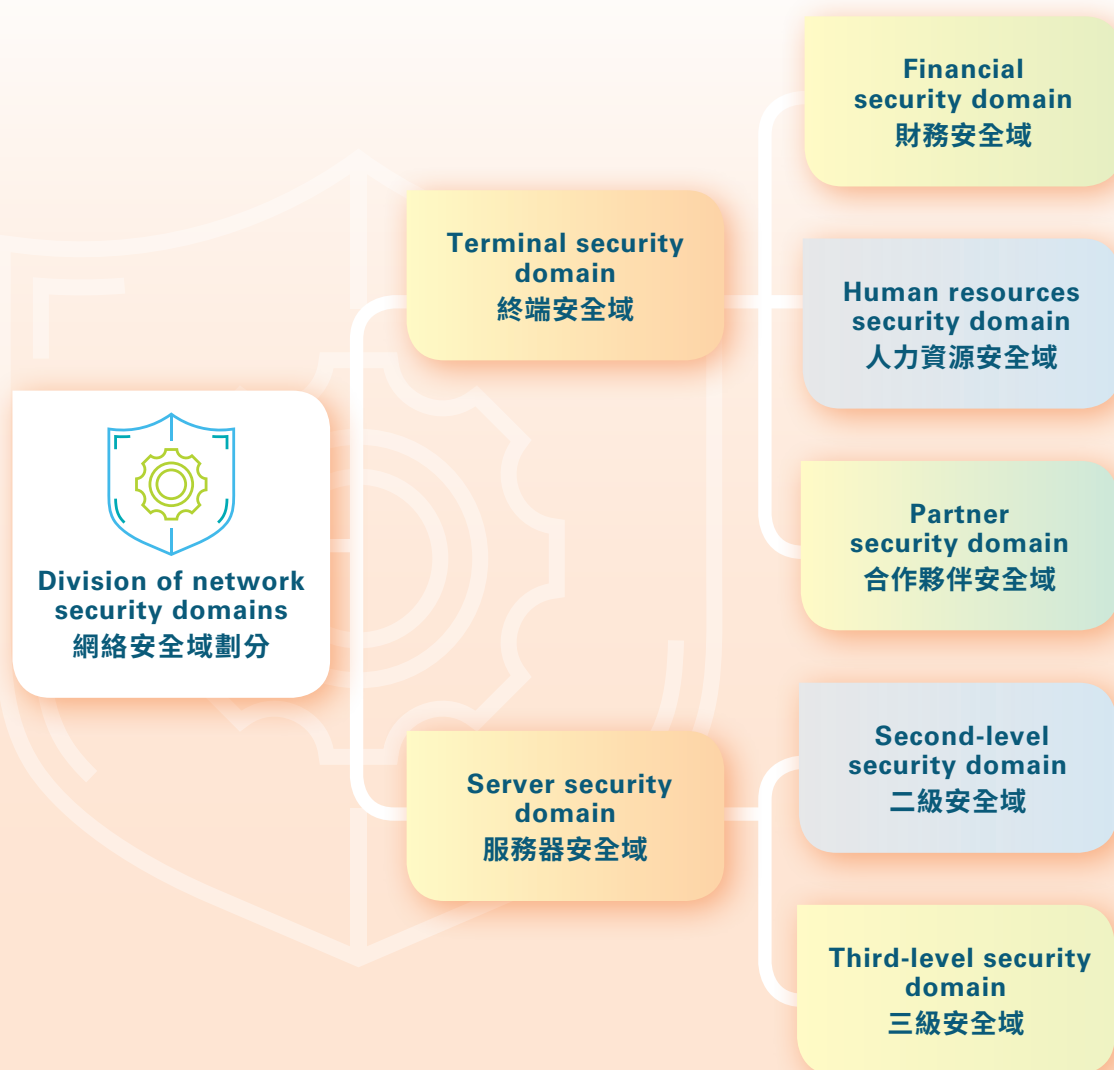
## 保障資料私隱及安全

本集團嚴格遵守《中華人民共和國計算機信息系統安全保護條例》、《電力二次系統安全防護規定》等與數據安全相關的法律法規，發佈並實施《信息系統建設管理辦法》、《網絡與信息安全管理辦法》、《網絡安全工作責任制實施辦法》、《境外網絡信息與數據安全管理辦法》等內部制度，完善保密管理體系，以持續強化網絡信息與數據安全的管理。

我們實行網絡安全工作責任制，安全生產部作為網絡與信息安全管理過程中風險控制的直接責任人，負責監督、檢查、考核信息保密管理的執行情況，記錄數據分析，形成安全審計報告，並定期召開專題會議，部署和解決任何安全問題。數字信息中心每年負責組織開展一次全公司範圍內的網絡安全評價與考核工作，以規範信息系統建設標準，提高企業信息化管理水平。

Our Measures for the Management of Network and Information Security clearly divides the security domains of network equipment. Vertically, they can be divided into terminal security domains and server security domains. Horizontally, the security domains of the terminals used are divided according to the users' departments, job levels and security levels. For servers, the security domains are divided according to the nature of business, level of protection and other requirements, so as to ensure the control and management of network access authority. The Group requires all employees to sign a confidentiality agreement to ensure that internal sensitive information is fully protected at work and to prevent confidential information from being leaked and threatening the Group's business.

我們的《網絡與信息安全管理辦法》明確細分了網絡設備的安全域，在縱向可以分為終端安全域和服務器安全域。在橫向會根據用戶的部門、級別和安全級別的規定對其使用終端進行安全域劃分，對於服務器即會按業務性質、等級保護規定等要求劃分安全域，從而確保對網絡訪問權限的控制管理。本集團要求所有僱員須簽署保密協議，確保在工作中充分保護內部敏感性資料信息，防止機密外洩對本集團商業造成威脅的行為。



The Group requires all units to declare and register when handling encrypted information, which may only be used upon approval. A confidentiality level marking produced by the unit must be pasted on the information according to the confidentiality level involved, and such information must be kept properly. For those who leak confidential information in violation of this regulation, the Group shall have the right to investigate their responsibilities in accordance with the law, and impose administrative sanctions or penalties on them in accordance with relevant confidentiality laws and regulations. During the Year, the Group did not identify any illegal or non-compliant incidents involving information privacy and security.

In order to further publicise and implement the key ideology of “building China into a national power in cyberspace” and strengthen the security awareness that “cybersecurity is no small matter” among all employees, the Group regularly organises special training and drills to ensure that technical personnel possess the professional management knowledge and technical level to be on guard against telecommunications fraud, prevent ransomware attacks, build a network security defence line, create a secure and stable network environment, and protect the information security and legitimate rights and interests of the Group and each individual. During the Year, the Group did not receive any cases involving infringement of customer privacy and loss of customer information.

本集團要求各單位在處理加密信息時必須進行申報、登記，經審批後方能投入使用，並須按其所涉及的機密等級粘貼單位統一製作的密級標識，進行妥善保管。對於違反本規定的洩密者，本集團將有權依法追究其責任，並依照有關保密法規給予其行政處分或出處罰。本年度，本集團未發現任何涉及資料隱私和信息安全的違法違規事件。

為深入宣傳貫徹「網絡強國」的重要思想，強化全體員工「網絡安全無小事」的安全意識，本集團定期舉辦組織專題培訓及演練活動，保證技術人員具備專業的管理知識和技術水平，防範電信詐騙、防止勒索病毒攻擊，共築網絡安全防線，營造安全穩定的網絡環境，保障本集團和個人的信息安全和合法權益。本年度，本集團並無接獲涉及侵犯客戶隱私和丟失客戶資料的案件。

#### Case: Emergency drill for power outage in Shenzhen 案例：深圳停電應急演練

On 1 May 2024, the Group organised an emergency drill for power outage in the Shenzhen server room. In order to deal with the issue of simultaneous power outage in the Shenzhen server room due to the power outage caused by maintenance of the Shenzhen office building and to prevent damage to hardware devices and loss of data, we have specifically formulated the Contingency Plan for Emergency Power Outage in the Shenzhen Server Room on May 1<sup>st</sup>, which has clearly defined the relevant responsibilities and tasks of the staff of the data information centre and the supporting personnel of the server room, with an aim to ensure smooth communication and cooperation to successfully complete this emergency drill for power outage.

於二零二四年五月一日，本集團組織了一次針對深圳機房的停電應急演練。為應對深圳辦公樓停電檢修導致的深圳機房同步停電問題，防止硬件設備的損壞、數據的丟失，特制定《五一深圳機房緊急停電應急預案》。該預案明確了數據信息中心工作人員及機房配合人員的相關職責和工作任務，確保溝通順暢，協同合作，順利完成本次的停電應急演練。



**Case:  
案例：****2024 “Cybersecurity Week” training conference  
二零二四年「網絡安全宣傳周」培訓大會**

On 13 September 2024, the Group’s digital information centre held the 2024 “Cybersecurity Week” training conference. More than 100 employees from various departments of the Company’s headquarters and various branches and subsidiaries participated in this training. Experts were invited to give special lectures to introduce the new situation and core driving force of cybersecurity in the era of cyberpower and digitalisation, and emphasised the key points of cross-border security and compliance of overseas data. This training conference effectively promoted and popularised cybersecurity knowledge, allowing employees to have a deeper understanding of the importance of cybersecurity.

於二零二四年九月十三日，本集團數字信息中心舉辦了二零二四年「網絡安全宣傳周」培訓大會。公司總部各部門、各分子公司百餘人參加了本次培訓，邀請了專家進行專題講座，介紹在網絡強國和數字化時代網絡安全面臨的新形勢及其核心驅動力，強調了海外數據跨境安全及合規要點。是次培訓大會有效宣傳普及了網絡安全知識，使員工更深刻理解網絡安全的重要性。



2024 “Cybersecurity Week” training conference  
二零二四年「網絡安全宣傳周」培訓大會

## ACHIEVING TECHNOLOGICAL BREAKTHROUGHS WITH EXCELLENT INNOVATIONS

The Group is fully aware of the importance of creative thinking and innovative technology in promoting the sustainability of the enterprise. Therefore, in order to facilitate the construction of an innovation management system with the Science, Technology and Innovation Commission as the core and with the Science, Technology and Innovation Office and Expert Committee established thereunder, the Group has, based on the principles of “deepening reform, being innovation-driven, implementing management upgrade and pursuing high-quality development”, formulated the Measures for the Management of Science and Technology Project Plans, the Measures for the Management of Science and Technology Project Costs, the Regulations on the Management of Science, Technology and Innovation and the Measures for the Management of Science, Technology and Innovation Awards.

During the Year, the Group’s research projects won the third prize of the Electric Power Employee Technological Innovation Award of the China Electricity Council, and the third prize of the Capital Employee Independent Innovation Award of the Beijing Federation of Trade Unions. In order to encourage all employees to participate in the independent research and development of innovative technologies, we have also established awards such as the Beijing Energy Group Employee Independent Innovation Award and the Outstanding Employee Independent Innovation Achievement Award, and published academic papers on photovoltaic modules in professional journals. We aim to continuously explore new technology directions, strengthen our technological strength, and actively promote digital transformation and global green energy development.

## 卓越創新技術攻關

本集團深知創新思維和革新技術在推動企業可持續發展上的重要性，因此，為推進以科技創新委員會為核心、下設科技創新辦公室和專家委員會的創新管理體系的建設，本集團以「深化改革、創新驅動、管理升級和高質量發展」為原則，制定了《科技計劃項目管理辦法》、《科技項目費用管理辦法》、《科技創新管理規定》、以及《科技創新獎勵管理辦法》。

本年度，本集團研究課題榮獲中電聯電力職工技術創新三等獎、北京市總工會首都職工自主創新三等獎。為了鼓勵全員參與創新科技的自主研發，我們亦設立京能集團職工自主創新獎、優秀職工自主創新成果獎等獎項，並就光伏組件於專業期刊上發表學術論文。我們旨在不斷探索新型技術方向，加強技術實力，積極推動數字化轉型工作和全球綠色能源發展。

**Case:  
案例：****Our first ultra-high altitude wind power project has been connected to the grid for power generation  
首個超高海拔風電項目併網發電**

The Company's first ultra-high altitude wind power project is located in Zhaxigang Township, Sajia County, Rikaze, Xizang, with an average altitude of over 5,000 metres. Our project team overcame the difficulties of construction in high-altitude areas such as low oxygen levels and harsh climate, enabling BJEI to achieve a breakthrough from scratch in the independent development of plateau wind power projects. After the project is put into operation, it is expected to generate approximately 120 million kWh of green electricity per year, which can meet the electricity requirement for the daily life of approximately 150,000 people each year, thereby effectively ensuring the secure supply of heating and electricity for local people in winter.

本公司首個超高海拔風電項目位於西藏日喀則薩迦縣扎西崗鄉，平均海拔超過5,000米。項目團隊克服了氧氣稀薄、嚴酷氣候等高海拔地區施工的困難，促使京能國際在高原風電項目自主開發上實現「零」的突破。項目投產後預計每年可生產綠色電能約1.2億千瓦時，可滿足約15萬人全年的生活用電需求，有力保障當地民眾冬季供暖和電力安全供應。



Our 50MW wind power project in Zhaxigang Township, Sajia County, Rikaze, Xizang  
西藏日喀則薩迦縣扎西崗鄉50兆瓦風電項目

Case:  
案例：

**Intelligent and Efficient Cleaning Robot for Photovoltaic Modules**  
**光伏組件智能高效清掃機器人**

On 28 July 2024, the “Intelligent and Efficient Cleaning Robot for Photovoltaic Modules” independently developed by the Company won the Gold Medal at the 2024 Silicon Valley International Invention Festival and was exhibited at the International Invention and Innovation Exhibition for the first time. The project uses 5G network and intelligent technologies such as machine learning and recognition to enable remote control, status monitoring, trajectory correction and autonomous cleaning, addressing the issue of incomplete cleaning in traditional methods as well as cleaning difficulties in low temperature weather and complex terrain, and extending the service life of photovoltaic modules.

This honour has not only demonstrated our technological innovation achievements in our transformation towards intelligence and smartness in the field of new energy, but also witnessed our constant pursuit of exploring new quality productivity in the field of clean energy.

二零二四年七月二十八日，由公司自主研发的「光伏組件智能高效清掃機器人」榮獲二零二四美國硅谷國際發明創新節金獎，並首次在國際發明創新展覽會展出。項目利用5G網絡和智能技術，如機器學習和識別，實現遠程控制、狀態監測、軌跡矯正和自主清掃，解決傳統方式清潔不徹底的頑疾，以及低溫天氣、複雜地形下的清掃難題，並延長光伏組件的使用壽命。

該項榮譽不僅展示了我們在新能源領域向智能化、智慧化轉型的科技創新成果，也見證了我們探索清潔能源領域新質生產力的孜孜以求。



Our “Intelligent and Efficient Cleaning Robot for Photovoltaic Modules” won the Gold Medal at the Silicon Valley International Invention Festival  
「光伏組件智能高效清掃機器人」榮獲美國硅谷國際發明創新節金獎



**Case:  
案例：****We have obtained new national standard certification for energy storage systems  
獲儲能系統新國標認證**

During the Year, the liquid-cooled energy storage battery container and liquid-cooled energy storage battery module independently designed and developed by the Group's integrated energy company completed the new national standard "Lithium-ion Batteries for Power Energy Storage" (GB/T 36276-2023) type test and obtained the test report. By optimising the cooling system and fire protection system, it has enabled the precise control of battery cell temperature, early warning and targeted fire protection, which has improved system efficiency and life, and provided a guarantee for the production safety of energy storage systems. As one of the first companies in China to complete the new national standard product certification for energy storage systems, the Company has demonstrated its comprehensive independent research and development and system integration capabilities for energy storage products. In the future, we will continue to deepen our research and development and investment in energy storage systems.

本年度，由本集團所屬綜能公司自主設計開發的液冷儲能電池箱、液冷儲能電池模塊完成新國標《電力儲能用鋰離子電池》(GB/T 36276-2023)型式試驗並取得檢測報告。通過優化冷卻系統和消防系統，實現精準控制電芯溫度、預警、及定點消防，提升了系統效率和壽命，為儲能系統的生產安全提供了保障。作為國內首批完成儲能系統新國標產品認證的企業，這標誌本公司已全面具備儲能產品自主研發及系統集成能力，未來我們將持續深耕儲能系統研發及投資領域。

**PROTECTING INTELLECTUAL PROPERTY RIGHTS**

In compliance with laws and regulations such as the Requirements for Corporate Intellectual Property Compliance Management System, the Group has formulated and implemented the Rules for the Management of Genuine Software, the Measures for Intangible Assets Management and the Enterprise Intellectual Property Management Specifications to reduce the risks of intangible asset management, give full play to the economic and social benefits of intangible assets, and safeguard the core competitiveness and rights and interests of the Group.

The Measures for Intangible Assets Management have clearly defined the responsibilities of various functional departments in the management of intangible assets, and provided regulations and guidance for the management of intangible assets based on the principle of "unified leadership and centralised management", including the planning, approval, procurement, research and development, registration, use, maintenance, operation, disposal and risk control of intangible assets, so as to effectively standardise the protection and management of the Group's intangible assets and ensure the security and integrity of intangible assets.

**保護知識產權**

本集團遵循《企業知識產權合規管理體系要求》等法律法規，制定並落實了《軟件正版化管理制度》、《無形資產管理辦法》及《企業知識產權管理規範》，以降低無形資產管理風險，發揮無形資產的經濟和社會效益，維護本集團的核心競爭力和權益。

《無形資產管理辦法》中明確了各職能部門在管理無形資產方面的責任，以「統一領導、歸口管理」的原則對無形資產的管理活動提供了規定和指引，包括在無形資產的計劃編製、計劃審批、採購、研發、登記、使用、維護、經營、處置、以及風險控制等方面，切實做到規範本集團無形資產的保護管理工作，保證無形資產的安全及完整。

**Business  
planning  
department**  
經營計劃部

- Responsible for supervising, inspecting and evaluating the implementation of the Measures for Intangible Assets Management  
負責對《無形資產管理辦法》的實施情況進行監督、檢查與考核
- Responsible for coordinating with the financial management department to prepare the annual intangible asset acquisition plan and funding plan of BJEI  
負責協同財務管理部編製京能國際年度無形資產購置計劃和資金計劃
- Responsible for the purchase application review, registration, disposal and other management of intangible assets of BJEI  
負責對京能國際無形資產的採購申請審核、登記、處置等管理
- Responsible for organising the maintenance and management of technological patents  
負責組織技術專利維護管理

**Financial  
management  
department**  
財務管理部

- Responsible for preparing the budget and funding plan for the acquisition of intangible assets by BJEI  
負責編製京能國際購置無形資產的預算和資金計劃
- Responsible for the auditing and accounting of intangible assets of BJEI  
負責京能國際無形資產的核算和賬務處理

**Company  
office**  
公司辦公室

- Responsible for the application, use, maintenance and other management of intangible assets such as trademarks  
負責商標等無形資產的申報、使用、維護等管理

**Production  
safety  
department**  
安全生產部

- Responsible for the research and development and application of patents, software copyrights, computer software and other intangible assets of BJEI  
負責京能國際專利、軟著、計算機軟件類等無形資產的研發和申報

## Responsibilities of Each Department

The details of the invention patents, utility model patents and software copyrights applied for and authorised, and the scientific papers published by the Group are shown in the following table. During the Year, the Group did not face any infringement of intellectual property rights, nor was it involved in any illegal or non-compliant incidents of infringement of others' intellectual property rights.

## 各部門職責

本集團申報及授權的發明專利、實用新型專利、軟件著作權，以及發表的科技論文的具體情況如下表所示。本年度，本集團未面臨任何知識產權受侵犯，亦無涉及任何侵犯他人知識產權的違法違規事件。

	Additions during the Year 本年度新增
Invention patents 發明專利 (項)	5
Utility model patents 實用新型專利 (項)	9
Software copyrights 軟件著作權 (項)	47
Scientific papers 科技論文 (篇)	5

Pursue Win-Win Cooperation and  
**Promote Green Supply**  
合作共贏 推動綠色供應



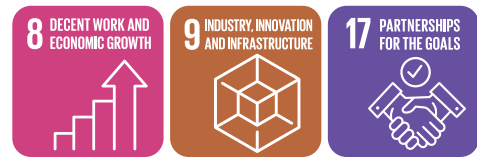


The Group understands that a reliable, responsible and sustainable supply chain is the foundation for maintaining its robust production and services. Therefore, by establishing and enhancing its comprehensive supply chain management system, the Group has established guidelines for supplier screening, evaluation, monitoring and green procurement to ensure that their activities comply with the Group's stringent standards, thereby avoiding potential environmental and social risks and achieving a win-win situation of common growth, equality and mutual benefit.

本集團知悉可靠、負責、且可持續的供應鏈是維持其穩健生產和服務的基礎。因此，通過建立並完善全面的供應鏈管理體系，本集團在供應商的篩選、評估、監察、以及綠色採購方面皆訂立了準則，以確保他們的活動能遵守本集團的嚴格標準，從而規避潛在的環境風險和社會風險，實現共同成長、平等互利的雙贏局面。

#### KPIs:

#### 關鍵績效指標：



Number of suppliers:  
供應商數目：

**1,082**

Percentage of suppliers subject to  
evaluation and monitoring:  
接受評估與監察的供應商比例：

**100%**

## SUSTAINABLE SUPPLY CHAIN MANAGEMENT

The Group strictly complies with laws and regulations related to suppliers and procurement, such as the Government Procurement Law of the People's Republic of China and the Law of the People's Republic of China on Bid Invitation and Bidding, and has implemented integrated, standardised and informatised management of the supply chain in accordance with the Measures for Procurement Management, the Measures for the Management of Duty Performance of Procurement Practitioners, the Measures for Tendering Management, the Measures for Suppliers Management, the Measures for the Integrity Management of Sunshine Procurement Commitment and the Measures for Materials Management issued within the Group. The relevant internal standards are applicable to the management of suppliers of the Company's headquarters, branches, subsidiaries and power plants.

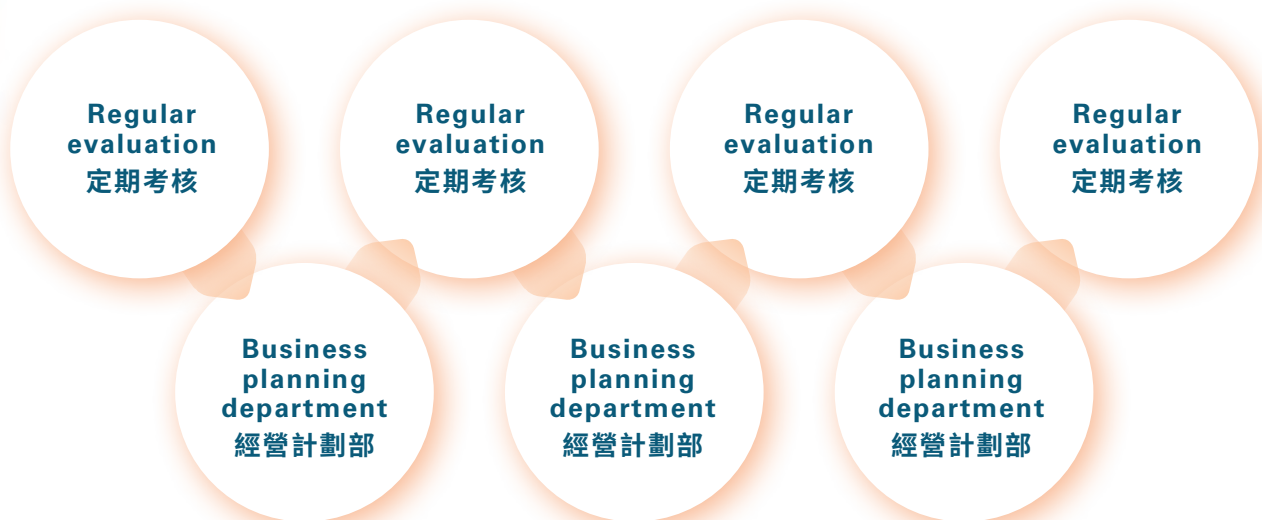
## 可持續供應鏈管理

本集團嚴格遵守《中華人民共和國政府採購法》、《中華人民共和國招標投標法》等與供應商及採購相關的法律法規，並根據內部發佈的《採購管理辦法》、《採購從業人員履職行為管理辦法》、《招標管理辦法》、《供應商管理辦法》、《陽光採購承諾誠信管理辦法》及《物資管理辦法》對供應鏈進行一體化、標準化、信息化的管理，相關的內部標準適用於本公司總部、分公司、子公司、電站供應商管理工作。



Adhering to the principles of "admission registration, quantitative evaluation, dynamic maintenance and result application, we aim to integrate ESG concepts into every aspect of supply chain management, and establish in-depth cooperative relationships with suppliers with high quality and professional capabilities, so as to ensure that our services and products are stable, sustainable and reliable, thereby laying a solid foundation for the long-term development of the Group.

秉持著「准入登記、量化評價、動態維護、結果應用」的原則，我們旨在將ESG理念融入供應鏈管理的各個環節，與具有高質量及專業能力的供應商建立深層合作關係，確保服務及產品具備穩定性、可持續性、及可靠性，為本集團的長遠發展奠定夯實的基礎。

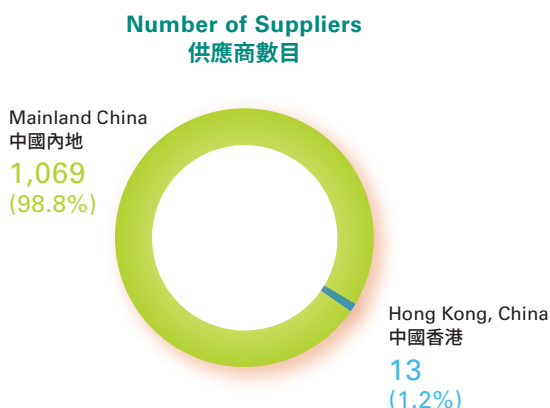


### Supply Chain Management Process

During the Year, the Group's procurement value was approximately RMB6,689.69 million. We have cooperated with 1,082 suppliers in three categories, namely materials, engineering and services, covering various market enterprises such as state-owned enterprises, private enterprises and individual merchants. The geographical distribution of our suppliers is shown in the chart below.

### 供應鏈管理流程

本年度，本集團的採購估值約為人民幣6,689.69百萬元。我們共與材料、工程、和服務三大類共計1,082個供應商展開了合作，覆蓋國有企業、民營企業、及個體商戶等各種市場企業。供應商的地理分佈如下圖所示。



## Supplier Admission Standards

In order to standardise supplier qualifications and ensure supply quality, the Group has implemented internal policies such as the Measures for Tendering Management and the Measures for Suppliers Management to specify the relevant responsibilities, standards and methods of supplier admission, and has formulated the List of Qualified Suppliers and the Supplier Scoring Sheet applicable to all partners in the fields of, among others, construction, materials and services.

At the beginning of the supplier admission process, the business planning department shall formulate a supplier development work plan, and examine and collect a preliminary list of suppliers. Based on the admission standards, the business planning department shall take the lead, and the supplier development team shall be responsible for reviewing the qualifications and performance of potential partners and, with reference to the Supplier Scoring Sheet, evaluating suppliers' credit record, management standard, supply quality and contract performance ability to produce a supplier verification report, and suppliers that meet the requirements of the Group shall be included into the List of Qualified Suppliers. Among which, companies with a complete ESG governance system and ISO quality, process or occupational health and safety management system certification shall be given priority.

To achieve sustainable management, our supplier admission has always followed the "principle of dynamic maintenance" and the "principle of result application".

## 供應商准入標準

為規範供應商資質、保證供貨質量，本集團貫徹落實《招標管理辦法》、《供應商管理辦法》等內部政策，明確供應商准入工作的相關職責、標準、方法，並制定了適用於包含施工、物資、服務等所有合作夥伴的合格供應商名錄及供應商打分表。

在供應商准入流程的開頭，經營計劃部會制定供應商開發工作計劃，調查和徵集供應商的初步名單。根據准入標準，由經營計劃部牽頭，供應商開發小組負責對潛在合作夥伴進行資格及業績審核，並參考「供應商打分表」對供應商的資信記錄、管理水平、供應品質和履約能力等進行評估，生成供應商核查報告，符合本集團要求的供應商則會被納入《合格供應商名單》中。其中，具備完善的ESG治理體系和ISO質量、環節、或職業健康安全體系認證的公司會被優先選擇。

為實現可持續管理，我們的供應商准入活動始終遵循「動態維護原則」及「結果應用原則」。

### Principle of dynamic maintenance 動態維護原則

Supplier admission registration information should be updated regularly according to the changes in supplier qualifications, capabilities, transaction scope and contract performance, in order to ensure the completeness and accuracy of supplier information in the procurement management system and the List of Qualified Suppliers.

供應商准入登記信息應隨著供應商資格能力、交易範圍及履約情況的變化而定期更新，以確保採購管理系統及合格供方名錄中供應商信息的完整及準確。

### Principle of result application 結果應用原則

The List of Qualified Suppliers complied from supplier admission activities should be reasonably and fully used in procurement, in order to enable a virtuous sustainable cycle in the Company's supplier database, thereby facilitating the improvement of procurement efficiency and the controllability of risks.

供應商准入活動總結形成的合格供方名錄應在採購活動中合理、充分應用，實現公司供應商庫良性循環可持續，進而促進採購效率提升、風險可控。

During the Year, the business planning department organised training on the use of the electronic procurement platform and training on procurement management knowledge. A total of 110 employees participated in these trainings, with a total training time of 14 hours. Through training on procurement-related laws, regulations, rules and cases, the procurement management personnel of our branches and subsidiaries have gained a clearer understanding on the methods and precautions of using the procurement platform, and have improved their procurement business knowledge and skills.

### Supplier Evaluation and Supervision

In order to standardise the supplier qualification review system, business planning department arranged our branches, subsidiaries and relevant functional departments to formulate assessment indicators and criteria for construction, material and service suppliers, and established a shared supplier evaluation system and supplier assessment form. Following the principle of “who uses, who assesses”, quantitative or qualitative assessments are conducted on the actual performance of suppliers in the aspects of, among others, procurement coordination, cost control, delivery quality and progress, service standard and effect of use.

In daily operations, our supplier development team is responsible for assisting in communicating and resolving technological and quality issues during the development process. Our branches and subsidiaries are responsible for compiling the supplier performance information submitted by each power plant, cooperating in forming an expert team to conduct on-site inspection and evaluation of suppliers, and strictly implementing the application of supplier management results. The business planning department is responsible for supervising, monitoring and evaluating the implementation of relevant internal standards, inspecting and evaluating supplier assessment results, and supervising the application of assessment results. The above-mentioned “principle of dynamic maintenance” and “principle of result application” shall also apply to our supplier assessment management.

本年度，經營計劃部組織了電子採購平台使用培訓和採購管理知識培訓，總共110名員工參加了這些培訓，培訓時長共計14小時。通過培訓採購相關法律法規、規章制度、案例等，分子公司的採購管理人員對採購平台的使用方式方法以及注意事項有了更清楚的了解，提高了他們的採購業務知識和技能水平。

### 供應商評估與監察

為規範供應商資質審核制度，經營計劃部組織分、子公司及相關職能部門制定了有關施工、物資、服務供應商的考核指標及標準，並建立了共享的供應商評價體系和供應商考核表，遵循「誰使用、誰考核」的原則，對供應商在採購配合、成本控制、交付質量及進度、服務水平、使用效果等環節的實際表現進行定量或定性的評估活動。

在日常運營活動中，我們的供應商開發小組負責協助溝通和解決開發過程中涉及技術與質量方面的問題，分、子公司負責匯總各電站上報的供應商履約情況信息，配合組建專家組對供應商進行現場考察和評估，並嚴格落實供應商管理結果的應用。經營計劃部則負責監督、監察和考核有關內部訂立標準的執行情況，對供應商評價結果進行檢查和考核，並監督評價結果的應用情況。上述所提到的「動態維護原則」及「結果應用原則」亦適用於我們的供應商評價管理活動中。

According to different supplier categories, we have established targeted assessment indicators and criteria in three dimensions, i.e. quality, business and services (or management). We also conduct regular and ad-hoc assessment and grading of suppliers in terms of, among others, market enthusiasm, installation and emergency response speed, component supply capabilities, technical services and on-site training.

根據不同的供應商分類，我們設置了主要包括質量、商務、及服務（或管理）三個維度具有針對性的考核指標及標準，並會就供應商的市場積極性、安裝及應急響應速度、備件供應能力、技術服務和現場培訓等方面展開定期與不定期相結合的評估定級方式。



#### Material category 物資類

Status of product acceptance  
產品驗收情況

Equipment failure rate  
設備故障率

Equipment safety performance  
設備安全性能

Equipment maintenance  
economic indicators  
設備維護經濟指標

Equipment material and  
configuration  
設備材質與配置



#### Engineering and services category 工程與服務類

Status of engineering and  
service acceptance  
工程與服務驗收情況

First-time pass rate of  
installation and commissioning  
安裝調試一次通過率

Equipment safety performance  
設備安全性能

Performance acceptance  
indicators  
性能驗收指標

Equipment material and  
configuration  
設備材質與配置

### Content of Supplier Quality Assessment 供應商質量考核內容



As stated in the Measures for Suppliers Management, based on the assessment, the Group manages suppliers according to different tiers, which are divided into strategic cooperation suppliers (A-tier), preferred suppliers (B-tier), to-be-improved suppliers (C-tier), suspended cooperation suppliers (D-tier) and terminated cooperation suppliers (E-tier). Only suppliers that reach tiers A to C may be included into the List of Qualified Suppliers. For suppliers of tiers C and D, we help them identify their issues and guide them in launching rectification plans. Those who actively improve can be upgraded to a higher tier, and those who do not respond or handle poorly shall be downgraded to a lower tier or be removed from the list. Non-compliant suppliers who are found to have particularly serious misconduct shall be blacklisted and shall not be allowed to conduct business with us when such issue is being dealt with.

如《供應商管理辦法》中所述，根據考核活動，本集團實施供應商分級管理，依次分為戰略合作供應商（A級），優選供應商（B級），待改善供應商（C級），暫停合作供應商（D級），終止合作供應商（E級）。只有達到A至C級的供應商方可列入《合格供應商名錄》中，對於C級和D級的供應商，我們會幫助其找準問題，引導其推出整改方案，積極改進者可調升級別。而對於無響應或處理不善者則會做降級或除名處理，被認定有特別嚴重不良行為的違規供應商會被列入黑名單，在處置期間將不得與之進行業務往來。

Tier 級別	Purchase 採購量	Relationship development 關係發展
Tier A A級	Increase 增加	Strengthen cooperation, as strategic partners 加強合作，戰略合作夥伴
Tier B B級	Increase when commercial terms are competitive 商務條件有競爭力時增加	As potential strategic partners 儲備戰略合作夥伴
Tier C C級	Decrease 減少	Notify for rectification and improvement 通知進行整頓、改進
Tier D D級	None 無	Suspend cooperation 暫停合作
Tier E E級	None 無	Terminate cooperation 終止合作

**Table of Supplier Tiers**  
**供應商等級表**

## PROMOTING SUSTAINABLE PROCUREMENT

### Green Supply Chain

Identifying and managing potential environmental and social risks of suppliers is essential to building a sustainable supply chain. The Group has included the Social Responsibility and Ethical Standards Compliance Agreement in the procurement contract, requiring suppliers to implement green construction measures to safeguard the health and safety of employees, and encourage them to actively fulfil other corporate social responsibilities. In terms of material selection, we promise to give priority to the purchase of green and environmentally friendly materials and products and, on the basis of ensuring product quality, also give priority to local suppliers close in proximity to our projects, so as to reduce carbon emissions during product transportation and support local economic development.

Moreover, in order to mitigate and control the soil and water erosion that may be caused during our construction and operation, we attach great importance to reviewing suppliers' comprehensive erosion prevention system and pollution prevention measures, so as to protect the soil and water resources in the vicinity of our projects to the greatest extent. Through market research, we also seek cooperation with suppliers in the new energy field to carry out new energy projects, so as to improve production efficiency and reduce the carbon footprints of our operations.

### Incorrupt Supply Chain

The Group always upholds a fair, just and open attitude in its procurement, and has formulated and implemented the Measures for the Management of Duty Performance of Procurement Practitioners, the Measures for the Integrity Management of Sunshine Procurement Commitment, the Measures for Tendering Management and the Measures for Procurement Management, requiring information such as tendering information, procedures, bid evaluation methods and bid results to be published openly and transparently on the Beijing Energy e-commerce platform in accordance with laws and regulations, thereby giving equal opportunities to bidders, firmly opposing any discrimination or unfair business practices, comprehensively regulating the work mechanism of sunshine procurement, and devoting ourselves to working with partners on an equal and mutually beneficial basis to jointly create a sustainable supply chain ecosystem.

## 推動可持續採購

### 綠色供應鏈

識別並管理供應商潛在存在的環境風險和社會風險對於構建一個可持續供應鏈至關重要。本集團已在採購合同中納入「遵守社會責任及道德標準協議書」，要求供應商落實綠色施工措施以保障職工健康安全，並鼓勵他們積極履行其他企業社會責任。在材料的選擇上，我們承諾優先考慮採購綠色環保的材料和產品，在確保產品質量的前提下優先選擇距離項目較近的本地供應商，以減少產品在運輸過程中的碳排放，支持本地經濟發展。

此外，為減輕並治理在我們建設和運營過程中可能造成的水土流失情況，我們格外重視審查供應商的綜合流失防治體系以及污染防治措施，以最大程度保護項目周邊的水土資源。我們亦會通過市場調研，尋求與在新能源領域發展的供應商開展新能源項目的合作，從而提升生產效率，減少運營的碳足跡。

### 廉潔供應鏈

本集團在採購活動中始終秉持公平公正公開的態度，制定並執行《採購從業人員履職行為管理辦法》、《陽光採購承諾誠信管理辦法》、《招標管理辦法》及《採購管理辦法》，要求招標信息、程序、評標方法和中標結果等信息都要按照法律法規公開透明地發佈於北京京能電子商務平台上，給予招標人平等機會，堅決反對任何歧視或不正當的商業手段，全面規範陽光採購的工作機制，致力於與合作夥伴平等互利，共同打造可持續的供應鏈生態。

Our business planning department is responsible for the centralised management and implementation of the procurement management system. As stated in the Measures for the Integrity Management of Sunshine Procurement Commitment, the integrity management system for sunshine procurement commitment, i.e. the principles of “three absolute forbiddances”, “ten strict prohibitions” and “five improvements”, shall apply to the Company and all of its branches and subsidiaries. The relevant responsible personnel shall sign a letter of commitment and accept the annual supervision and inspection work of the business planning department and the audit and supervision department. Moreover, the management measures have also stipulated a reward and punishment method for incorrupt procurement, and incorporated the fulfilment of commitments into the corporate performance appraisal system.

In the Measures for Suppliers Management, we have clearly stated that supplier misconduct includes fraud, malpractice, commercial bribery, delayed delivery, untimely after-sales services, serious quality problems and other violations of laws and contracts in the process of providing products and services. Once a misconduct is verified, we will warn the supplier, circulate a notice, suspend its qualification for trading, confiscate the bid deposits or blacklist the supplier according to the severity of the specific incident. Those who violate relevant national laws and regulations shall be handed over to the judicial authority for handling.

In order to continuously standardise and supervise the tendering of the Group, our audit and supervision department is responsible for regular and ad-hoc audits of pre-bid, bidding and bid evaluation, including supervising whether the bid evaluation personnel have signed the Integrity Responsibility Guarantee, and conducting disciplinary inspections for violations. Moreover, the Group has established a corruption reporting channel and indicated the contact information of the audit and supervision agency in the tendering contract, encouraging the parties to actively report and expose any unfairness they encounter. During the Year, the Group did not identify any cases of fraud and violations in bidding.

經營計劃部負責採購管理體系的歸口管理與實施。如《陽光採購承諾誠信管理辦法》中所述，陽光採購承諾誠信管理制度，即「三個絕對不允許」、「十個嚴禁」、「五個提升」原則，適用於本公司及所有分子公司，相關負責人員須簽署承諾書，接受經營計劃部和審計監督部的年度監督檢查工作。此外，該管理辦法亦制定廉潔採購的獎懲辦法，將承諾履行情況納入企業績效考核體系。

我們在《供應商管理辦法》中列明，供應商不良行為包括在提供產品和服務過程中存在弄虛作假、營私舞弊、商業賄賂、拖延供貨、不及時售後、嚴重質量問題以及其他違法違約的情況，一經查實，我們會根據具體事件的嚴重程度對供應商進行警告、通報、暫停交易資格、罰沒收標保證金、或列入黑名單的處理方式，觸犯國家有關法律法規的將移交司法機關處理。

為持續規範並監督本集團的招標活動，審計監督部會負責對開標前、招標、及評標工作進行定期和不定期的審計，包括監督評標人員是否有簽訂《廉潔責任保證》，對於違規行為會進行執紀審查。此外，本集團設立了廉潔舉報渠道，並在招標合同中標明了審計監督機構的聯繫方式，鼓勵當事人在遇到任何不公平事宜時可以積極進行舉報和揭發。本年度，本集團沒有發現招採舞弊違規事項。



Commit to Public Welfare and  
**Join Hands with the Community**  
for Common Prosperity  
投身公益 攜手社區共榮





We have always taken “being the most respected international clean energy ecosystem investor and operator” as our company development goal, emphasising that, while creating economic value, we shall pay attention to hot social issues, respond to policy calls based on our own development characteristics, actively give back to the society, and promote the complementary development of social economy and public welfare.

#### KPIs:

#### 關鍵績效指標：

Total expenditure on public welfare during the Year (RMB):

本年度公益慈善累計支出(人民幣)：

**4,844,865元**



## ENABLING THE INDUSTRY TO EXPEDITE DEVELOPMENT

The Group actively maintains close contact with internal and external institutions and industry organisations, and continuously carries out extensive cooperation and exchanges. By deepening the cooperation among industry, academia and research, we jointly explore and formulate industry development standards, with an aim to promote the common progress of ourselves and the entire industry. This open and cooperative attitude and our active participation in the industry have not only strengthened our leading position in the industry, but also provided impetus for the overall development and innovation of the industry.

## 賦能行業加速發展

本集團積極與內外部機構和行業組織保持緊密聯繫，持續開展廣泛的合作與交流。通過深化產學研合作，我們共同探討並制定行業發展標準，旨在推動自身與整個行業的共同進步。這種開放的合作態度和積極的行業參與，不僅加強了我們在行業中的領導地位，也為行業的整體發展和創新提供了動力。

Case:  
案例：

**We led the formulation of new energy standards and industry specifications**  
**引領新能源標準制定與行業規範**

In 2024, the Group participated in the formulation of the national standard for the operation of tower-type concentrated solar power ("CSP") plants and the social organisation standard for the green hydrogen industry. The former is the first standard for the operation of tower-type CSP plants in China, regulating the production and operation of molten salt energy storage tower-type CSP plants. The latter provides technological guidance for off-grid hydrogen production projects for wind and solar power generation. We have always paid attention to the safety and technological specifications of new energy industry technologies, and assisted in the expansion and commercialisation of innovative technologies, thereby promoting the high-quality development of new energy industries such as green hydrogen.

二零二四年，本集團參與編製塔式光熱電站運行國家標準及綠氫行業團體標準。前者為我國首個塔式光熱電站運行標準，規範熔鹽儲能塔式光熱發電站的生產運行；後者為風光發電離網製氫項目提供技術指導。我們始終關注新能源行業技術的安全性和技術規範，助力創新技術規模化和商業化，推動綠氫等新能源產業高質量發展。

Case:  
案例：

**BJEI participated in the 17<sup>th</sup> International Photovoltaic Power Generation and Smart Energy (Shanghai) Conference and Exhibition**  
**京能國際參加第17屆國際太陽能光伏和智慧能源(上海)大會暨展覽會**

During the Year, the Group participated in the 17<sup>th</sup> International Photovoltaic Power Generation and Smart Energy (Shanghai) Conference and Exhibition, and gained an in-depth understanding of the cutting-edge technologies and demonstration projects of various exhibitors. Through in-depth exchanges with many companies, we explored the potential for cooperation and collaborative development. We look forward to participating in industry exchange events to build consensus with our peers and explore innovative cooperation models, thereby complementing each other's strengths.

本年度，本集團參加了第17屆國際太陽能光伏和智慧能源(上海)大會暨展覽會，深入了解了各參展單位的前沿技術和示範項目。通過與多家企業深入交流，我們探討了合作空間和協同發展潛力。我們期待通過參與行業交流活動，與同行凝聚共識，探索創新合作模式，實現優勢互補。



Exchange with industry partners  
與行業夥伴進行交流

## FACILITATING RURAL REVITALISATION AND PROSPERITY

The Company actively integrates its own resources and, through the development of industrial integration projects, has not only created abundant employment opportunities but also facilitated the development of a diversified industrial economy. These projects have injected new vitality into rural areas and boosted local economic prosperity. They have also provided strong support for the implementation of the national rural revitalisation strategy and helped rural areas move towards a better future.

## 鄉村振興繁榮發展

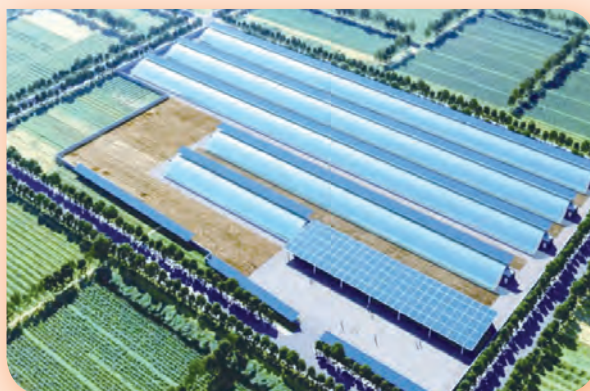
公司積極整合自身資源，通過發展產業融合類項目，不僅創造了豐富的就業機會，還促進了多元產業經濟的發展。這些項目為鄉村地區注入了新的活力，推動了當地經濟的繁榮，同時也為國家鄉村振興戰略的實施提供有力支持，助力鄉村走向更加美好的未來。

### Case: 案例：

### The carbon neutral industrial integration project in Pinggu District, Beijing led rural energy transformation 北京平谷碳中和產業融合項目引領鄉村能源轉型

In 2024, we successfully implemented the “technology agriculture + ecological cultural tourism + smart energy” carbon neutral industrial integration project in Daxingzhuang Town, Pinggu District, Beijing. This project has integrated photovoltaic power generation, intelligent temperature control system, global space planting technology, water and fertiliser integrated system and modern high-tech planting technology. Through the independently developed comprehensive smart energy operation and maintenance management system, it has realised refined and intelligent management throughout the entire project cycle. The project adopts the operation model of “self-generation for self-use, with surplus power to the grid”, and has an estimated annual power generation volume of 1,060MWh, becoming a model for facilitating rural revitalisation through agricultural modernisation and promoting carbon neutrality through renewable energy.

二零二四年度，我們在北京平谷大興莊鎮成功實施「科技農業+生態文旅+智慧能源」碳中和產業融合項目。此項目整合了太陽能光伏發電、智能溫控系統、全域空間種植技術、水肥一體化系統以及現代高科技種植技術，並通過自主研發的綜合智慧能源運維管理系統，實現了項目全週期的精細化和智能化管理。項目採用「自發自用，餘電上網」的運營模式，預計年均發電量達106萬千瓦時，成為以農業現代化推動鄉村振興、以可再生能源助力碳中和的典範。



The “technology agriculture + ecological cultural tourism + smart energy”  
carbon neutral industrial integration project in Daxingzhuang Town,  
Pinggu District, Beijing  
北京平谷大興莊鎮「科技農業+生態文旅+智慧能源」碳中和產業融合項目

## CONTINUOUS COMMUNICATION WITH THE COMMUNITY

While expanding our business, the Group focuses on establishing a harmonious relationship with the community in the areas where we operate. By strengthening communication and participating in local development, we strive to reduce the impact of our project construction on residents and protect their legitimate rights and interests. Our Measures for the Management of Engineering Safety and Civilised Construction has clearly defined the environmental protection requirements during the construction process, e.g. setting up barriers to prevent the spread of dust, so as to ensure a clean construction environment and reduce disturbance to surrounding residents.

Moreover, we are committed to maintaining communication with residents to ensure that their rights and interests are respected. For example, when faced with an environmental emergency, we require the relevant unit to take prompt and effective measures to control the source of pollution, prevent the spread of harm, and promptly notify the community and residents that may be affected. These measures have reflected our commitment to social responsibility and community well-being.

## 持續社區溝通交流

在拓展業務的同時，本集團注重與運營地區社區建立和諧關係，通過加強溝通和參與地方發展，努力降低項目建設對居民的影響，保護他們的合法權益。我們的《工程安全文明施工管理辦法》明確了施工過程中的環保要求，如設置圍擋以防止灰塵擴散，確保施工環境整潔，減少對周邊居民的干擾。

此外，我們致力於與居民保持溝通，確保他們的權益得到尊重。例如，面對突發環境事件，我們規定事發單位必須迅速採取有效措施控制污染源，防止危害擴散，並及時通知可能受影響的社區和居民。這些措施體現了我們對社會責任的承擔和對社區福祉的承諾。



## GATHERING PUBLIC WELFARE FORCES FOR THE COMMUNITY

The Group is committed to leveraging its own platform resources and industry advantages to facilitate the sharing and development of clean energy technologies in the community, thereby promoting the long-term and sustainable development of the community's economy and society. During the Year, we engaged in social charity activities through projects such as rural revitalisation, sports events, disaster relief and community services, with a total of 74 employee service hours, demonstrating our commitment to social responsibility and community development.

## 凝聚社區公益力

本集團致力於利用自身平台資源和行業優勢，推動清潔能源技術在社區的共享與發展，以此促進社區經濟和社會的長期可持續發展。今年，我們通過鄉村振興、體育活動、救災和社區服務等項目實施社會慈善活動，累計僱員服務時數共74小時，展現了我們對社會責任的承擔和對社區發展的承諾。

### Case: 案例：

### Our employees visited a village to carry out volunteer activity for the National Fire Prevention Day 赴村莊開展全國消防宣傳日志願活動

On 15 November 2024, 15 young employees from the Company visited Kaoshan Village, Ershilidian Town where the Shandong Haiyang Power Plant is located, and actively carried out volunteer activity for the National Fire Prevention Day. They distributed brochures to local villagers and popularised fire prevention knowledge on family fire prevention and daily use of fire for residents in simple and easy-to-understand language, demonstrating the dedication and responsibility of BJEI.

二零二四年十一月十五日，公司十五名青年赴山東海陽電站所在的二十里店鎮靠山村，積極開展全國消防宣傳日志願活動，給當地村民發放宣傳小冊子，用簡潔易懂的語言為居民普及家庭防火、日常用火的火災防範知識，展現了樂於奉獻、勇於擔當的京能國際風采。



Photos of volunteer activity for the  
National Fire Prevention Day  
全國消防宣傳日志願活動剪影

Case:  
案例：

**Employees at the headquarters carried out volunteer service activity for the elderly**  
**總部機關敬老愛老志願服務活動**

On the occasion of the 61<sup>st</sup> Lei Feng Memorial Day, the Youth League branch of the Company's headquarters, together with the Youth League Committee of the Beijing branch of Huaxia Bank and the Youth League Committee of Beijing Health and Elderly Care Group, visited the Changping District Nursing Home to carry out a volunteer service activity for the elderly in the theme of "Promoting the Spirit of Lei Feng, with Capable Youths in Action". In the activity, members of the Young League brought carefully selected gifts and heart-warming artistic performances to the elderly, and held anti-fraud lectures to increase the elderly's awareness of and ability to prevent pension fraud crimes. The "Capable Youths" have practiced the spirit of Lei Feng with kindness and enthusiasm, and interpreted the dedication of youth and social responsibility with practical actions.

在第六十一個學雷鋒紀念日到來之際，公司總部機關團支部聯合華夏銀行北京分行團委、北京康養團委走進昌平區敬老院開展「弘揚雷鋒精神『能小青』在行動」敬老愛老志願服務活動。活動中，團員青年們為老人帶來了精心挑選的慰問物品和溫馨的文藝表演，開展反詐宣講小課堂，提高老年人對養老詐騙犯罪活動的辨別意識和防騙能力。「能小青」們用愛心和熱情踐行雷鋒精神，用實際行動詮釋了青春奉獻和社會責任。



Group photo of volunteers in the volunteer  
service activity for the elderly  
敬老愛老志願服務活動志願者合影

**Case:  
案例：****Baoshan Energy carried out a volunteer service activity in the theme of “Learning from Lei Feng, Practicing Civilisation”  
保山能源開展「學雷鋒·文明實踐我行動」志願服務活動**

On 28 March 2024, Baoshan Energy carried out a volunteer service activity in the theme of “Learning from Lei Feng, Practicing Civilisation”, where members of the Youth League visited the community. The “Capable Youths” divided their work and cooperated with each other to actively participate in the sanitation and clean-up of community, the disinfection of human settlement environment and the promotion of corporate culture, demonstrating the positive mental outlook of young employees and achieving remarkable results through practical activity.

二零二四年三月二十八日，保山能源開展團青進社區「學雷鋒·文明實踐我行動」志願服務活動，「能小青」們分工合作，積極參與社區衛生大清理、人居環境大消殺、企業文化大宣傳活動，展現出青年員工良好的精神面貌，實踐活動成效顯著。



Photos of the volunteer service activity in the theme of “Learning from Lei Feng, Practicing Civilisation”

「學雷鋒·文明實踐我行動」志願服務活動剪影

# Independent Assurance Statement 獨立審驗聲明

## VERIFICATION STATEMENT

SHINEWING Sustainability Advisory Services Limited (“SHINEWING Sustainability”) has been engaged by Beijing Energy International Holding Co., Ltd. (“BJEI”) (HKSE Stock Code: 00686) to undertake an independent verification on Environmental, Social and Governance Report 2024 (“ESG Report”). The ESG Report set out the environmental and social performance of BJEI from 1 January 2024 to 31 December 2024; and has been prepared in accordance with the requirements of Appendix C2 - “Environmental, Social and Governance Reporting Guide” of the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited.

### Objective

This independent verification statement is solely for the use of the stakeholders and management personnel of BJEI. The statement has been prepared in English and Chinese versions. Should there be any discrepancies between these versions, the English version shall prevail.

### Responsibilities of BJEI

BJEI is responsible for the data collection, calculation, making estimates and preparation of the ESG Report. BJEI is also responsible for implementing sound internal control procedures to ensure the content and presentation of the ESG Report are free from material errors.

### Responsibilities of SHINEWING Sustainability

SHINEWING Sustainability is responsible to provide an independent verification statement to stakeholders based on the scope and methodology described. We do not assume responsibility or accept liability to any other person for the contents of this report.

## 驗證聲明

信永方略可持續發展諮詢服務有限公司(「信永方略可持續發展」)獲北京能源國際控股有限公司(「京能國際」)(股票代號：00686)委託，對其二零二四年環境、社會及管治報告(「ESG報告」)進行獨立驗證。該ESG報告載列了京能國際在二零二四年一月一日至二零二四年十二月三十一日期間的環境和社會績效，並根據香港聯合交易所有限公司《證券上市規則》附錄C2《環境、社會及管治報告指引》的要求編制。

### 目的

本獨立驗證聲明僅供京能國際持份者和管理人員使用。本聲明分中英文兩個版本。如中英文版本有任何歧異，概以英文版本為準。

### 京能國際責任

京能國際負責ESG報告的數據收集、計算、估算及編制工作。京能國際亦負責實施健全的內部控制程序，以確保ESG報告的內容和表述不存在重大錯誤。

### 信永方略可持續發展責任

信永方略可持續發展負責根據所述範圍和方法向持份者提供獨立驗證聲明。我們概不就本報告的內容，對任何其他人士負責或承擔法律責任。



## Independence

SHINEWING Sustainability is independent to BJEI. There is no relationship between SHINEWING Sustainability and BJEI beyond the contractual agreement for providing the verification service.

## Inherent Limitation

The absence of a significant body of established practice on which to draw to evaluate and measure non-financial information allows for different, but acceptable, measures and measurement techniques and can affect comparability between entities. Further, greenhouse gas quantification is subject to inherent uncertainty because of incomplete scientific knowledge used to determine emissions factors and the values needed to combine emissions of different gases.

## Scope

The scope of the verification statement is limited to the data and information in the ESG Report. BJEI selected several specified performance information in the ESG Report for the verification purpose, which included the greenhouse gas emissions<sup>1</sup>, energy consumption<sup>2</sup>, waste generation<sup>3</sup>, employee related data<sup>4</sup> and social contribution data<sup>5</sup> (collectively referred to as “Specified Performance Information”) set out in the ESG Report.

## Methodology

The verification is with reference to (i) AA1000AS v3, Type 2 Engagement and Moderate Level of Assurance; (ii) ESG Reporting Guide; and (iii) SHINEWING Sustainability Procedures of Verification on ESG and Sustainability Report.

## 獨立性

信永方略可持續發展獨立於京能國際。除了審驗合約訂明的驗證服務，信永方略可持續發展與京能國際沒有其他聯繫。

## 固有限制

由於非財務資料未有國際公認和通用於評估和計量的標準，故此不同但均為可接受的指標和計量技術，或會影響與其他機構的可比性。此外，基於未有完備的科學知識可予採用以確定結合不同氣體的排放因子和排放值，因此溫室氣體排放的量化存在固有的不確定性。

## 範圍

驗證聲明的範圍僅限於ESG報告的數據和資料。京能國際在ESG報告中選定多項特定績效資料進行驗證，其中包括ESG報告中列出的溫室氣體排放量<sup>1</sup>、能源使用量<sup>2</sup>、廢棄物排放量<sup>3</sup>、員工類數據<sup>4</sup>以及社會貢獻數據<sup>5</sup>（統稱「特定績效資料」）。

## 方法

此次驗證參考(i)AA1000AS v3、審驗類型2和中度等級的驗證；(ii)ESG報告指引；以及(iii)信永方略可持續發展對於ESG及可持續發展報告的核查驗證程序。

<sup>1</sup> Refer to Appendix I: Overview of ESG Key Performance Indicators Section of the ESG Report : Greenhouse gas emissions data

<sup>2</sup> Refer to Appendix I: Overview of ESG Key Performance Indicators Section of the ESG Report : Energy consumption data

<sup>3</sup> Refer to Appendix I: Overview of ESG Key Performance Indicators Section of the ESG Report : Waste generation data

<sup>4</sup> Refer to Appendix I: Overview of ESG Key Performance Indicators Section of the ESG Report : Employee related data

<sup>5</sup> Refer to Appendix I: Overview of ESG Key Performance Indicators Section of the ESG Report : Social contribution data

<sup>1</sup> 請參閱ESG 報告附錄一：ESG關鍵績效指標概覽：溫室氣體排放量數據

<sup>2</sup> 請參閱ESG 報告附錄一：ESG關鍵績效指標概覽：能源使用量數據

<sup>3</sup> 請參閱ESG 報告附錄一：ESG關鍵績效指標概覽：廢棄物排放量數據

<sup>4</sup> 請參閱ESG 報告附錄一：ESG關鍵績效指標概覽：員工類數據

<sup>5</sup> 請參閱ESG 報告附錄一：ESG關鍵績效指標概覽：社會貢獻數據

Within the scope of our work, SHINEWING Sustainability performed amongst others the following procedures:

- Review the preparation process of the ESG Report, including stakeholders engagement and materiality assessment.
- Verify the system and process of collection, analysis and reporting of selected data.
- Interview the manager responsible for sustainability performance and data collection.
- Verify the samples of the representative data and information selected, including review on conversion data and calculation as well as inspect the original data and supporting evidence of the data selected during the verification process.
- Assess whether the preparation of the ESG Report by BJEI responded to the principles of Inclusivity, Materiality, Responsiveness, and Impact as defined in the AA1000AS v3.

## Conclusion

With reference to the AA1000AS v3 principles of Inclusivity, Materiality, Responsiveness and Impact, our conclusions are as follows:

- **Inclusivity:** BJEI has identified key stakeholders and has understood stakeholders' needs and concerned issues through various forms of stakeholder engagement. BJEI has demonstrated that their formulation of policies accounted for stakeholders' expectations and their impacts.
- **Materiality:** BJEI has accounted for stakeholders' needs and concerned issues, and has disclosed identified material issues based on its unique business characteristics, legal and regulatory requirements, economic, environmental and social impacts, etc. BJEI has disclosed the methodology, process and outcome of the assessment on material issues.

在我們的工作範圍內，信永方略可持續發展主要執行了以下程序：

- 審查ESG報告準備過程，包括持份者參與和重要性評估。
- 驗證收集、分析和報告選定數據的系統和流程。
- 與負責可持續發展績效和數據收集的人員進行訪談。
- 驗證選定的代表性數據和信息樣本，包括對轉換數據和計算的審核，以及檢查驗證過程中選擇的原始數據及其支持證據。
- 評估京能國際編寫的ESG報告是否符合AA1000AS v3中定義的包容性、實質性、回應性和影響性原則。

## 結論

參考AA1000AS v3中的包容性、實質性、回應性及影響性原則，我們的驗證結果如下：

- **包容性：**京能國際識別了主要持份者，並通過各種形式的持份者參與，了解持份者的需求和所關注的議題。京能國際已證明他們在制定政策時已考慮到持份者的期望及其影響。
- **重要性：**京能國際已考慮到持份者的需求和所關注的議題，並根據其獨特的業務特點、法律法規要求、經濟、環境和社會影響等因素，披露了已確定的重大議題。京能國際披露了重大議題評估方法、過程和結果。

- **Responsiveness:** BJEI has established communication channels for its stakeholders to understand their concerns and expectations. Meanwhile, through the ESG Report, BJEI has disclosed corporate sustainability strategies, management systems, management key points, key stakeholder participation activities as well as major sustainability development related issues to respond to key stakeholders.
- **Impact:** BJEI has considered and evaluated its impacts by integrating ESG concepts into daily operations and realised its impacts on stakeholders, so as to make a more effective business decision-making and result-based management within the organisation.
- **Specified Performance Information:** Based on the procedures that SHINEWING Sustainability has performed and the evidence we have obtained, nothing has come to our attention that causes us to believe that the Specified Performance Information is not reliable or is not in the quality of the basis of reporting as set out in the ESG Report.
- **回應性：**京能國際為持份者建立了溝通渠道，以了解他們的關注和期望。同時，通過ESG報告，京能國際披露了企業可持續發展策略、管理體系、管理要點、主要持份者的參與活動以及與可持續發展相關的主要議題，以回應主要持份者。
- **影響性：**京能國際通過將ESG理念融入日常經營，考量並評估其產生的影響，並認識到其對持份者產生的影響，從而在企業內進行更有效的商業決策以及落實相關的管理措施。
- **特定績效信息：**根據信永方略可持續發展執行的程序及取得的證據，我們沒有發現任何事項使我們懷疑特定績效資料可靠性及質量或未能符合列於ESG報告中的編制基礎。



## About SHINEWING Sustainability

SHINEWING Sustainability has studied, standardized and verified corporate environmental performance data since 2016. SHINEWING's Sustainability team possesses relevant professional technical capability and experience. The relevant personnel received professional training regarding sustainability standards such as GRI Sustainability Reporting Standards issued by Global Reporting Initiative, AA1000AS v3, ESG Reporting Guide, ISO 14064 and PAS2600.

SHINEWING Sustainability Advisory Services Limited  
Hong Kong  
17<sup>th</sup> April, 2025



## 信永方略團隊

信永方略自二零一六年開始研究、標準化和驗證企業環境績效數據。信永方略的可持續發展團隊具備相關的專業技術能力和經驗，相關人士接受過如全球報告倡議組織發佈的《GRI可持續發展報告標準》、AA1000AS v3、ESG報告指引、ISO 14064、PAS2600等可持續發展相關標準的專業培訓。

信永方略可持續發展諮詢服務有限公司  
香港  
二零二五年四月十七日

## Appendix I : Overview of ESG Key Performance Indicators 附錄一：ESG關鍵績效指標概覽

### ENVIRONMENTAL MANAGEMENT

### 環境管理

		2024 二零二四年	2023 二零二三年	2022 二零二二年
<b>Use of Resources – Energy</b>				
<b>資源使用－能源</b>				
<b>Offices</b>				
<b>辦公室</b>				
Electricity (MWh)	電力 (兆瓦時)	1,239.46	1,099.5	553.23
Heating (MWh)	暖氣 (兆瓦時)	2,263.42	2,445.75	–
Gasoline (MWh)	汽油 (兆瓦時)	1,322.22	1,823.18	0
Diesel (MWh)	柴油 (兆瓦時)	134.68	122.67	–
<b>Power Plants</b>				
<b>電站</b>				
Electricity (MWh)	電力 (兆瓦時)	109,063.28	63,888.72	59,880.0
Heating (MWh)	暖氣 (兆瓦時)	0	0	0
Gasoline (MWh)	汽油 (兆瓦時)	200.94	844.97	2,907.11
Diesel (MWh)	柴油 (兆瓦時)	227.77	524.12	71.04
<b>Offices and Power Plants</b>				
<b>辦公室及電站</b>				
Total consumption (MWh)	消耗總量 (兆瓦時)	114,451.78	70,748.91	63,411.38
Consumption intensity (MWh per GWh electricity generated)	消耗強度 (兆瓦時／ 吉瓦時發電量)	5.89	5.13	8.88
<b>Use of Resources – Water</b>				
<b>資源使用－水</b>				
<b>Offices</b>				
<b>辦公室</b>				
Water (Tons)	水 (噸)	5,369.00	5,610.06	1,522
<b>Power Plants</b>				
<b>電站</b>				
Water (Tons)	水 (噸)	136,055.59	90,726.75	66,610
<b>Offices and Power Plants</b>				
<b>辦公室及電站</b>				
Total water consumption (Tons)	耗水總量 (噸)	141,424.59	96,336.81	68,132
Water consumption intensity (Tons per GWh electricity generated)	耗水強度 (噸／吉瓦時發電量)	7.28	6.99	9.54



		2024 二零二四年	2023 二零二三年	2022 二零二二年
<b>Emissions</b>	<b>排放</b>			
<b>Greenhouse Gas Emissions</b>	<b>溫室氣體排放</b>			
Total greenhouse gas emissions (tCO <sub>2</sub> e)	溫室氣體排放總量 (噸二氧化碳當量)	62,119	38,318	35,197
Scope 1: Direct emissions (tCO <sub>2</sub> e) <sup>(1)</sup>	範圍1：直接排放 (噸二氧化碳當量) <sup>(1)</sup>	670	790	729
Scope 2: Indirect emissions (tCO <sub>2</sub> e) <sup>(2)</sup>	範圍2：間接排放 (噸二氧化碳當量) <sup>(2)</sup>	60,545	37,159	34,468
Scope 3: Indirect emissions (tCO <sub>2</sub> e) <sup>(3)</sup>	範圍3：間接排放 (噸二氧化碳當量) <sup>(3)</sup>	903	369	–
Emissions intensity (tCO <sub>2</sub> e per GWh electricity generated)	排放強度(噸二氧化碳當量／吉瓦時發電量)	3.20	2.78	4.93
<b>Air Emissions<sup>(4)</sup></b>	<b>廢氣排放<sup>(4)</sup></b>			
Sulphur oxide (kg)	硫氧化物(公斤)	2.9	5.1	12.7
Nitrogen oxide (kg)	氮氧化物(公斤)	684.2	2,856.8	425.4
Particulate matter (kg)	顆粒物(公斤)	55.3	265.6	54.8
<b>Wastewater</b>	<b>廢水</b>			
Wastewater discharge (Tons)	廢水排放量(噸)	53,297.95	77,069.5	57,044.6
Emissions intensity (Tons per GWh electricity generated)	排放強度 (噸／吉瓦時發電量)	2.74	5.59	7.99
<b>Hazardous Waste</b>	<b>有害廢棄物</b>			
Waste cartridges (Tons)	廢墨盒(噸)	0.64	0.07	–
Waste lamps (Tons)	廢燈具(噸)	0.01	0.01	–
Total hazardous waste generated (Tons)	產生有害廢棄物總量(噸)	0.64	0.079 <sup>12</sup>	0.03
Waste intensity (kg per GWh electricity generated)	產生廢棄物強度 (公斤／吉瓦時發電量)	0.03	0.006	0
<b>Solar Panels</b>	<b>太陽能電池板</b>			
Number of solar panels placed (Tons)	太陽能電池板置放量(噸)	146.48	–	–
<b>Non-hazardous Waste</b>	<b>無害廢棄物</b>			
Recyclable waste (Tons)	可回收廢棄物(噸)	0.90	0.04	3.2
Non-recyclable waste (Tons)	不可回收廢棄物(噸)	8.24	15.47	14.01
Total waste generated (Tons)	產生廢棄物總量(噸)	9.14	15.51	17.21
Waste intensity (kg per GWh electricity generated)	產生廢棄物強度 (公斤／吉瓦時發電量)	0.47	1.13	2.41

<sup>12</sup> Starting from 2024, the data on solar panel placement is no longer included in the hazardous waste generated, and accordingly the data of 2023 has also been adjusted.

<sup>12</sup> 由二零二四年度開始，太陽能板置放數據不再包括於有害廢棄物產生量中，因此二零二三年數據亦有所調整。

Notes:

1. The scope of calculation of greenhouse gas emissions (Scope 1) includes the tree planting in Mainland China and the fuel use of automobiles in Mainland China and Australia. The calculation methods and related greenhouse gas emissions for tree planting in 2024 are with reference to the "Reporting Guidance on Environmental KPIs (Appendix II)" published by the Stock Exchange. The calculation methods and related greenhouse gas emissions for fuel use of automobiles in Mainland China and Australia in 2024 are respectively with reference to the "Guidelines on Greenhouse Gas Emission Accounting and Reporting" published by the National Development and Reform Commission (the "NDRC") of the People's Republic of China and the "2006 IPCC Guidelines for National Greenhouse Gas Inventories" published by the Intergovernmental Panel on Climate Change (IPCC) of the United Nations.
2. The scope of calculation of greenhouse gas emissions (Scope 2) includes the indirect emissions caused in the production process through the purchased electricity in Mainland China, Australia and Vietnam and the purchased heating in Mainland China. The calculation methods and related emission coefficients of greenhouse gas emissions from electricity use in Mainland China, Australia and Vietnam in 2024 are respectively with reference to the "Announcement on the Release of Carbon Dioxide Emission Factors for Electricity in 2022" published by the Ministry of Ecology and Environment of the People's Republic of China and the National Bureau of Statistics of China in 2024, the "Australian National Greenhouse Accounts (NGA) Factors" for individuals and organisations estimating greenhouse gas emissions published by the Department of Climate Change, Energy, the Environment and Water of Australian Government in 2024 and the "Report on the Study and Development of Emission Factor (Ef) for Vietnamese Electrical Grid" published by the Ozone Layer Protection and Low Carbon Economy Development Centre in 2018. The calculation methods and related emission coefficients of greenhouse gas emissions from heating use in Mainland China in 2024 are with reference to the "Guidelines on Greenhouse Gas Emission Accounting Methodologies and Reporting for Enterprises Operating Public Buildings (Trial)" published by the NDRC of the People's Republic of China in 2023.
3. The scope of calculation of greenhouse gas emissions (Scope 3) includes the business travel by employees, the methane gas generation at landfill due to disposal of paper waste and the electricity used for fresh water and sewage processing which are other indirect emissions that occur outside the Company. The calculation methods of greenhouse gas emissions from business travel by employees are with reference to the Carbon Emissions Calculator published by the International Civil Aviation Organisation (ICAO). The calculation methods and related emission coefficients of greenhouse gas emissions from methane gas generation at landfill due to disposal of paper waste are with reference to the "Reporting Guidance on Environmental KPIs (Appendix II)" published by the Stock Exchange. The calculation methods and related emission coefficients of greenhouse gas emissions from electricity used for fresh water and sewage processing are with reference to the "Study on Energy Consumption of Urban Water Supply System in China" published by Tsinghua University and the "Statistical Analysis and Quantitative Identification of the Law of Energy Consumption in Urban Sewage Treatment Plants in China" published by the Tsinghua University and National Urban Water and Drainage Engineering Technology Research Centre.
4. The scope of calculation of air pollutant emissions includes the fuel use of automobiles.

附註：

1. 溫室氣體排放(範圍1)的計算範圍包括中國內地的植樹以及中國內地及澳洲汽車的燃料使用。二零二四年所種樹木的計算方法及相關溫室氣體排放乃參照聯交所發佈的《環境關鍵績效指標匯報指引(附錄二)》，而二零二四年中國內地及澳洲汽車的燃料使用的計算方法及相關溫室氣體排放乃分別參照中華人民共和國國家發展和改革委員會(國家發改委)發佈的《溫室氣體排放核算方法與報告指南》以及聯合國政府間氣候變化專門委員會(IPCC)發佈的《二零零六年IPCC國家溫室氣體清單指南》。
2. 溫室氣體排放(範圍2)的計算範圍包括中國內地、澳洲及越南外購電力以及中國內地外購熱力在生產過程中造成的間接排放。二零二四年中國內地、澳洲及越南的電力使用產生的溫室氣體排放的計算方式及相關排放係數乃分別參考中華人民共和國生態環境部及中國國家統計局於二零二四年發佈的《關於發佈2022年電力二氧化碳排放因子的公告》、澳洲政府氣候變化、能源、環境及水部(Department of Climate Change, Energy, the Environment and Water of Australian Government)於二零二四年就個體及組織估算溫室氣體排放所發佈的《澳洲國家溫室氣體核算因子》以及臭氧層保護與低碳經濟發展中心(Ozone Layer Protection and Low Carbon Economy Development Centre)於二零一八年發佈的《越南電網排放係數研究及開發的報告》。二零二四年中國內地的熱力使用產生的溫室氣體排放的計算方法及相關排放係數乃參考中華人民共和國國家發改委於二零二三年發佈的《公共建築運營企業溫室氣體排放核算方法與報告指南(試行)》。
3. 溫室氣體排放(範圍3)的計算範圍包括僱員差旅、因處理廢紙而在垃圾填埋場產生的甲烷氣體以及用於淡水及污水處理的電力，該等均產生於公司外部的其他間接排放。僱員差旅產生的溫室氣體排放的計算方法乃參照國際民用航空組織(ICAO)頒布的碳排放計算器。因處理廢紙而在垃圾填埋場產生的甲烷氣體產生的溫室氣體排放的計算方法及相關排放係數乃參照聯交所提供的《環境關鍵績效指標匯報指引(附錄二)》，及用於淡水及污水處理的電力產生的溫室氣體排放的計算方法及相關排放係數乃參照清華大學發佈的「中國城市供水系統能耗研究」及清華大學與國家給水排水工程技術研究中心發佈的「我國城市污水處理廠能耗規律的統計分析與定量識別」。
4. 大氣污染物排放的計算範圍包括汽車的燃料使用。

SOCIAL MANAGEMENT<sup>13</sup>社會管理<sup>13</sup>

		2024 二零二四年	2023 二零二三年	2022 二零二二年
<b>Labour profile</b>	<b>勞工分佈</b>			
<b>Total workforce</b>	<b>僱員總數</b>	1,918	1,790	1,011
<b>By Gender</b>	<b>按性別</b>			
Male	男性	1,529 (79.7%)	1,426 (79.7%)	806 (79.7%)
Female	女性	389 (20.3%)	364 (20.3%)	205 (20.3%)
<b>By Region</b>	<b>按地區</b>			
Mainland China	中國內地	1,824 (95.1%)	1,705 (95.2%)	970 (95.9%)
Hong Kong, China	中國香港	30 (1.6%)	30 (1.7%)	26 (2.6%)
Overseas	海外	64 (3.3%)	55 (3.1%)	15 (1.5%)
<b>By Employee Type</b>	<b>按僱傭類型</b>			
Full-time	全職	1,918	1,790	1,011
Part-time	兼職	0	0	0
<b>By Employee Contract</b>	<b>按僱傭合同</b>			
Fixed	固定	1,918	1,790	1,011
Temporary	臨時	0	0	0
<b>By Employee Category</b>	<b>按僱員類型</b>			
Senior management personnel	高級管理人員	10 (0.5%)	10 (0.6%)	10 (1.0%)
Middle management personnel	中級管理人員	104 (5.4%)	94 (5.3%)	84 (8.3%)
General employee	普通僱員	1,804 (94.1%)	1,686 (94.1%)	917 (90.7%)
<b>By Age Group</b>	<b>按年齡組別</b>			
30 or below	30歲或以下	516(26.9%)	450 (25.2%)	329 (32.5%)
31 to 40	31歲至40歲	809(42.2%)	1,180 (65.9%)	505 (50.0%)
41 or above	41歲或以上	593(30.9%)	160 (8.9%)	177 (17.5%)
<b>By Education Background</b>	<b>按教育背景</b>			
Doctor	博士	10 (0.5%)	10 (0.6%)	3 (0.3%)
Master	碩士	256 (13.3%)	255 (14.2%)	169 (16.7%)
Bachelor	學士	1,120 (58.4%)	962 (53.7%)	613 (60.6%)
Non-tertiary qualification and below	大專及以下學歷	532 (27.7%)	563 (31.5%)	226 (22.4%)

<sup>13</sup> Due to rounding, the sum of the figures may not equal 100%.<sup>13</sup> 由於四捨五入，數字的總和未必相等於100%。

		2024 二零二四年	2023 二零二三年	2022 二零二二年
<b>Employee turnover and turnover rate<sup>(1)</sup></b>		<b>流失僱員總數及僱員流失比率<sup>(1)</sup></b>		
<b>By Gender</b>		<b>按性別</b>		
Male	男性	85 (5.8%)	86 (7.7%)	76 (9.4%)
Female	女性	31 (8.2%)	21 (7.4%)	10 (4.9%)
<b>By Region</b>		<b>按地區</b>		
Mainland China	中國內地	104 (5.9%)	102 (7.6%)	82 (8.5%)
Hong Kong, China	中國香港	5 (16.4%)	1 (3.6%)	1 (3.8%)
Overseas	海外	7 (11.8%)	4 (11.4%)	3 (20.0%)
<b>By Age</b>		<b>按年齡</b>		
30 or below	30歲或以下	31 (6.4%)	16 (4.1%)	20 (6.1%)
31 to 40	31歲至40歲	42 (4.2%)	80 (9.5%)	51 (10.1%)
41 or above	41歲或以上	43 (11.4%)	11 (6.5%)	15 (8.5%)
<b>Total number of new hire employees and ratio<sup>(2)</sup></b>		<b>新入職僱員總數及比例<sup>(2)</sup></b>		
<b>By Gender</b>		<b>按性別</b>		
Male	男性	189 (77.5%)	259 (77.3%)	272 (78.8%)
Female	女性	55 (22.5%)	76 (22.7%)	73 (21.2%)
<b>By Region</b>		<b>按地區</b>		
Mainland China	中國內地	226 (92.6%)	293 (87.5%)	335 (97.1%)
Hong Kong, China	中國香港	3 (1.2%)	4 (1.2%)	5 (1.4%)
Overseas	海外	15 (6.1%)	38 (11.3%)	5 (1.4%)
<b>By Age</b>		<b>按年齡</b>		
30 or below	30歲或以下	138 (56.6%)	194 (57.9%)	160 (46.4%)
31 to 40	31歲至40歲	86 (35.2%)	104 (31.1%)	137 (39.7%)
41 or above	41歲或以上	20 (8.2%)	37 (11.0%)	48 (13.9%)
<b>Return and retention rate after parental leave</b>		<b>育嬰假後的返崗及留任</b>		
<b>By Gender</b>		<b>按性別</b>		
Male	男性	100%	100%	100%
Female	女性	100%	100%	100%
<b>Total number of ethnic minority employees and ratio</b>		<b>少數民族僱員總數及比例</b>		
<b>By Gender</b>		<b>按性別</b>		
Male	男性	176 (80.4%)	167 (83.5%)	79 (79.8%)
Female	女性	43 (19.6%)	33 (16.5%)	20 (20.2%)



		2024 二零二四年	2023 二零二三年	2022 二零二二年
<b>Health and safety</b>	<b>健康與安全</b>			
<b>Occupational health and safety performance</b>	<b>職業健康與安全表現</b>			
<b>By Accident Category</b>	<b>按事故類型</b>			
Number of safety accidents	安全事故數量	0	0	0
Number of first level accidents	一類事故數量	0	0	0
Number of mis-operation accidents	誤操作事故數量	0	0	0
Number of near-miss accidents	未遂事故數量	0	0	0
Number of fire accidents	火災事故數量	0	0	0
Number of traffic accidents	交通事故數量	0	0	0
<b>Work-related injury and fatalities</b>	<b>工傷及因工傷亡故情況</b>			
Work-related injury per 1,000 workers	每千名僱員工傷數	0	0	0
Lost days due to work-related injury	因工傷損失工作日數	0	0	0
Number of work-related fatalities in each of the past three years (including the reporting year)	過去三年(包括匯報年度)每年因工亡故人數	0	0	0
Rate of work-related fatalities in each of the past three years (including the reporting year)	過去三年(包括匯報年度)每年因工亡故比率	0	0	0
<b>Health examination</b>	<b>健康檢查情況</b>			
Proportion of employees undergoing health examination	接受健康檢查的僱員比例	100%	100%	100%
<b>Education on occupational health and safety<sup>(3)</sup></b>	<b>職業健康與安全教育<sup>(3)</sup></b>			
Total attendances of training <sup>14</sup>	培訓總人次 <sup>14</sup>	25,895	1,502	1,011
Total training hours	培訓總時數	51,000	12,016	9,243
Percentage of employees trained	受訓僱員比例	100%	83.9%	100%

<sup>14</sup> Starting from 2024, the statistical unit of occupational health and safety training has been adjusted to number of attendances.

<sup>14</sup> 由2024年開始，職業健康與安全培訓統計單位調整為人次。

		2024 二零二四年	2023 二零二三年	2022 二零二二年
<b>Development and training</b>		<b>發展及培訓</b>		
<b>Percentage of employees trained</b>		<b>受訓僱員比例</b>		
<b>By Gender<sup>(4)</sup></b>	<b>按性別<sup>(4)</sup></b>			
Male	男性	100%	100%	100%
Female	女性	100%	100%	100%
<b>By Employee Category<sup>(5)</sup></b>	<b>按僱員類型<sup>(5)</sup></b>			
Senior management personnel	高級管理人員	100%	100%	100%
Middle management personnel	中級管理人員	100%	100%	100%
General employee	普通僱員	100%	100%	100%
<b>Average training hours per employee</b>		<b>僱員受訓平均時數(小時)</b>		
<b>By Gender</b>	<b>按性別</b>			
Male	男性	235.52	68	18
Female	女性	235.52	72	21
<b>By Employee Category</b>	<b>按僱員類型</b>			
Senior management personnel	高級管理人員	111.7	124	20
Middle management personnel	中級管理人員	236.17	125	14
General employee	普通僱員	236.17	65	19
<b>Total number of employees trained</b>		<b>受訓僱員總數</b>		
<b>By Gender</b>	<b>按性別</b>			
Male	男性	1,529	1,426	806
Female	女性	389	364	205
<b>By Employee Category</b>	<b>按僱員類型</b>			
Senior management personnel	高級管理人員	10	10	10
Middle management personnel	中級管理人員	104	94	84
General employee	普通僱員	1,804	1,686	917
<b>Average training expenses per employee (RMB)</b>	<b>僱員人均培訓開支(人民幣元)</b>	2,148	2,931	1,718

		2024 二零二四年	2023 二零二三年	2022 二零二二年
<b>Supply chain management</b>	<b>供應鏈管理</b>			
<b>Number of suppliers</b>	<b>供應商數目</b>			
<b>By Region</b>	<b>按地區</b>			
Mainland China	中國內地	1,069	1,039	666
Regions other than Mainland China	中國內地以外的其他地區	13	5	4
<b>Community Investment</b>				
<b>Total social investment (RMB)</b>	<b>社區投資總額(人民幣元)</b>	4,844,865	8,000,000	11,430,000

Notes:

附註：

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|---|--|
| <p>1. Employee turnover rate = the number of employees who left during the Year/(the number of employees at the beginning of the Year + the number of employees at the end of the Year)/2 × 100. Separate statistical analyses were conducted for different classification groups including age, region and gender.</p> <p>2. Ratio of new hire employees = the number of employees started to be employed during the Year/(the number of employees at the beginning of the Year + the number of employees at the end of the Year)/2 × 100. Separate statistical analyses were conducted for different classification groups including age, region and gender.</p> <p>3. The percentage of employees trained by gender is calculated by dividing the headcounts of trained employees of each gender by the total number of employees of such gender.</p> <p>4. The percentage of employees trained by employee category is calculated by dividing the number of trained employees of each employee category by the total number of employees of such employee category.</p> | <p>1. 僱員流失率的計算公式為：本年度離職僱員／(年初僱員總數+年末僱員人數)／2x100，本集團已就不同分類組別(包括年齡、地區及性別)分別進行統計數據分析。</p> <p>2. 新入職的計算公式為：本年度開始受雇的僱員／(年初僱員人數+年末僱員人數)／2x100，本集團已就不同分類組別(包括年齡、地區及性別)分別進行統計數據分析。</p> <p>3. 按性別劃分的受訓僱員比例乃以各性別的受訓僱員人數除以相應性別的僱員總數計算。</p> <p>4. 按僱員類型劃分的受訓僱員比例乃以各僱員類型的受訓僱員人數除以相應僱員類型的僱員總數計算。</p> |
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# Appendix II: HKEX ESG Reporting Guide Content Index

## 附錄二：香港聯交所《ESG報告指引》內容索引

Subject Areas, Aspects, General Disclosure and KPIs		Page/Remarks
主要範疇、層面、一般披露及關鍵績效指標		頁碼／備註
A. Environmental		
A.環境		
Aspect A1: Emissions		
層面A1：排放物		
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste.	P. 46-97
一般披露	有關廢氣及溫室氣體排放、向水及土地的排污、有害及無害廢物的產生等的：(a)政策；及(b)遵守對發行人有重大影響的相關法律及規例的資料。	
KPI A1.1	The types of emissions and respective emissions data.	P. 64-66, 170
關鍵績效指標 A1.1	排放物種類及相關排放數據。	
KPI A1.2	Direct (Scope 1) and energy indirect (Scope 2) greenhouse gas emissions and intensity.	P. 83, 170
關鍵績效指標 A1.2	直接(範圍1)及能源間接(範圍2)溫室氣體排放量及密度。	
KPI A1.3	Total hazardous waste produced and intensity.	P. 70, 170
關鍵績效指標 A1.3	所產生有害廢棄物總量及密度。	
KPI A1.4	Total non-hazardous waste produced and intensity.	P. 70, 170
關鍵績效指標 A1.4	所產生無害廢棄物總量及密度。	
KPI A1.5	Description of emission target(s) set and steps taken to achieve them.	P. 62, 71-83, 88-92, 95
關鍵績效指標 A1.5	描述所訂立的排放量目標及為達到這些目標所採取的步驟。	



Subject Areas, Aspects, General Disclosure and KPIs			Page/Remarks
主要範疇、層面、一般披露及關鍵績效指標			頁碼／備註
KPI A1.6	Description of how hazardous and non-hazardous wastes are handled, and a description of reduction target(s) set and steps taken to achieve them.		P. 62, 66-70
關鍵績效指標 A1.6	描述處理有害及無害廢棄物的方法，及描述所訂立的減廢目標及為達到這些目標所採取的步驟。		
Aspect A2: Use of Resources			
層面A2：資源使用			
General Disclosure	Policies on the efficient use of resources, including energy, water and other raw materials.		P. 88-95
一般披露	有效使用資源(包括能源、水及其他原材料)的政策。		
KPI A2.1	Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total and intensity.		P. 92, 169
關鍵績效指標 A2.1	按類型劃分的直接及／或間接能源(如電、氣或油)總耗量及密度。		
KPI A2.2	Water consumption in total and intensity.		P. 94, 169
關鍵績效指標 A2.2	總耗水量及密度。		
KPI A2.3	Description of energy use efficiency target(s) set and steps taken to achieve them.		P. 62, 88-92
關鍵績效指標 A2.3	描述所訂立的能源使用效益目標及為達到這些目標所採取的步驟。		
KPI A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency target(s) set and steps taken to achieve them.		P. 62, 93-94
關鍵績效指標 A2.4	描述求取適用水源上可有任何問題，以及所訂立的用水效益目標及為達到這些目標所採取的步驟。		
KPI A2.5	Total packaging material used for finished products and with reference to per unit produced.		The Group's operations do not involve the consumption of packaging materials
關鍵績效指標 A2.5	製成品所用包裝材料的總量及每生產單位佔量。		本集團的營運並不涉及包裝材料的耗用

Subject Areas, Aspects, General Disclosure and KPIs 主要範疇、層面、一般披露及關鍵績效指標			Page/Remarks 頁碼／備註
Aspect A3: The Environment and Natural Resources 層面A3：環境及天然資源			
General Disclosure 一般披露	Policies on minimising the issuer's significant impacts on the environment and natural resources. 減低發行人對環境及天然資源造成重大影響的政策。		P. 84-87
KPI A3.1 關鍵績效指標 A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them. 描述業務活動對環境及天然資源的重大影響及已採取管理有關影響的行動。		P. 84-87
Aspect A4: Climate Change 層面A4：氣候變化			
General Disclosure 一般披露	Policies on identification and mitigation of significant climate-related issues which have impacted, and those which may impact, the issuer. 識別及應對已經及可能會對發行人產生影響的重大氣候相關事宜的政策。		P. 71-83
KPI A4.1 關鍵績效指標 A4.1	Description of the significant climate-related issues which have impacted, and those which may impact, the issuer and the actions taken to manage them. 描述已經及可能會對發行人產生影響的重大氣候相關事宜，及應對行動。		P. 71-83

Subject Areas, Aspects, General Disclosure and KPIs 主要範疇、層面、一般披露及關鍵績效指標		Page/Remarks 頁碼／備註
<b>B. Social</b>		
<b>B. 社會範疇</b>		
Aspect B1: Employment 層面B1：僱傭		
General Disclosure  一般披露	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare.  有關薪酬及解僱、招聘及晉升、工作時數、假期、平等機會、多元化、反歧視以及其他待遇及福利的：(a)政策；及(b)遵守對發行人有重大影響的相關法律及規例的資料。	P. 99-113
KPI B1.1  關鍵績效指標 B1.1	Total workforce by gender, employment type, age group and geographical region.  按性別、僱傭類型、年齡組別及地區劃分的僱員總數。	P. 102, 172
KPI B1.2  關鍵績效指標 B1.2	Employee turnover rate by gender, age group and geographical region.  按性別、年齡組別及地區劃分的僱員流失比率。	P. 103, 173
Aspect B2: Health and Safety 層面B2：健康與安全		
General Disclosure  一般披露	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environment and protecting employees from occupational hazards.  有關提供安全工作環境及保障僱員避免職業性危害的：(a)政策；及(b)遵守對發行人有重大影響的相關法律及規例的資料。	P. 119-130
KPI B2.1  關鍵績效指標 B2.1	Number and rate of work-related fatalities occurred in each of the past three years including the reporting year.  過去三年(包括匯報年度)每年因工亡故的人數及比率。	P. 174

Subject Areas, Aspects, General Disclosure and KPIs 主要範疇、層面、一般披露及關鍵績效指標			Page/Remarks 頁碼／備註
KPI	B2.2	Lost days due to work injury.	P. 174
關鍵績效指標	B2.2	因工傷損失工作日數。	
KPI	B2.3	Description of occupational health and safety measures adopted, and how they are implemented and monitored.	P. 119-130
關鍵績效指標	B2.3	描述所採納的職業健康與安全措施，以及相關執行及監察方法。	
Aspect B3: Development and Training 層面B3：發展及培訓			
General Disclosure		Policies on improving employees' knowledge and skills for discharging duties at work.	P. 114-118
一般披露		Description of training activities. 有關提升僱員履行工作職責的知識及技能的政策。描述培訓活動。	
KPI	B3.1	The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	P. 115, 175
關鍵績效指標	B3.1	按性別及僱員類別（如高級管理層、中級管理層等）劃分的受訓僱員百分比。	
KPI	B3.2	The average training hours completed per employee by gender and employee category.	P. 115, 175
關鍵績效指標	B3.2	按性別及僱員類別劃分，每名僱員完成受訓的平均時數。	
Aspect B4: Labour Standards 層面B4：勞工準則			
General Disclosure		Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labour.	P. 104
一般披露		有關防止童工或強制勞工的：(a)政策；及(b)遵守對發行人有重大影響的相關法律及規例的資料。	
KPI	B4.1	Description of measures to review employment practices to avoid child and forced labour.	P. 104
關鍵績效指標	B4.1	描述檢討招聘慣例的措施以避免童工及強制勞工。	



Subject Areas, Aspects, General Disclosure and KPIs			Page/Remarks
主要範疇、層面、一般披露及關鍵績效指標			頁碼／備註
KPI B4.2	Description of steps taken to eliminate such practices when discovered.		P. 104
關鍵績效指標 B4.2	描述在發現違規情況時消除有關情況所採取的步驟。		
Aspect B5: Supply Chain Management			
層面B5：供應鏈管理			
General Disclosure	Policies on managing environmental and social risks of the supply chain.		P. 149-156
一般披露	管理供應鏈的環境及社會風險政策。		
KPI B5.1	Number of suppliers by geographical region.		P. 150, 176
關鍵績效指標 B5.1	按地區劃分的供應商數目。		
KPI B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, and how they are implemented and monitored.		P. 149-156
關鍵績效指標 B5.2	描述有關聘用供應商的慣例，向其執行有關慣例的供應商數目、以及有關慣例的執行及監察方法。		
KPI B5.3	Description of practices used to identify environmental and social risks along the supply chain, and how they are implemented and monitored.		P. 149-156
關鍵績效指標 B5.3	描述有關識別供應鏈每個環節的環境及社會風險的慣例，以及相關執行及監察方法。		
KPI B5.4	Description of practices used to promote environmentally preferable products and services when selecting suppliers, and how they are implemented and monitored.		P. 155
關鍵績效指標 B5.4	描述在揀選供應商時促使多用環保產品及服務的慣例，以及相關執行及監察方法。		

Subject Areas, Aspects, General Disclosure and KPIs 主要範疇、層面、一般披露及關鍵績效指標			Page/Remarks 頁碼／備註
Aspect B6: Product Responsibility 層面B6：產品責任			
General Disclosure 一般披露		Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress. 有關所提供產品和服務的健康與安全、廣告、標籤及私隱事宜以及補救方法的：(a)政策；及 (b)遵守對發行人有重大影響的相關法律及規例的資料。	P. 46-57, 132-147
KPI	B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	The Group is engaged in the electricity supply services and does not have physical products and therefore does not involve in product recalls
關鍵績效指標	B6.1	已售或已運送產品總數中因安全與健康理由而須回收的百分比。	本集團從事供電服務，沒有實體產品，故不涉及產品回收等問題
KPI	B6.2	Number of products and service related complaints received and how they are dealt with.	P. 137
關鍵績效指標	B6.2	接獲關於產品及服務的投訴數目以及應對方法。	
KPI	B6.3	Description of practices relating to observing and protecting intellectual property rights.	P. 146-147
關鍵績效指標	B6.3	描述與維護及保障知識產權有關的慣例。	
KPI	B6.4	Description of quality assurance process and recall procedures.	P. 133-137
關鍵績效指標	B6.4	描述質量檢定過程及產品回收程序。	The Group is engaged in the electricity supply services and does not have physical products and therefore does not involve in product recalls 本集團從事供電服務，沒有實體產品，故不涉及產品回收等問題
KPI	B6.5	Description of consumer data protection and privacy policies, and how they are implemented and monitored.	P. 139-142
關鍵績效指標	B6.5	描述消費者數據保障及私隱政策，以及相關執行及監察方法。	

Subject Areas, Aspects, General Disclosure and KPIs		Page/Remarks
主要範疇、層面、一般披露及關鍵績效指標		頁碼／備註
Aspect B7: Anti-corruption		
層面B7：反貪腐		
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering.	P. 37-42
一般披露	有關防止賄賂、勒索、欺詐及洗黑錢的：(a)政策；及(b)遵守對發行人有重大影響的相關法律及規例的資料。	
KPI B7.1	Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases.	P. 42
關鍵績效指標 B7.1	於匯報期內對發行人或其僱員提出並已審結的貪污訴訟案件的數目及訴訟結果。	
KPI B7.2	Description of preventive measures and whistle-blowing procedures, and how they are implemented and monitored.	P. 39-40
關鍵績效指標 B7.2	描述防範措施及舉報程序，以及相關執行及監察方法。	
KPI B7.3	Description of anti-corruption training provided to directors and staff.	P. 41
關鍵績效指標 B7.3	描述向董事及員工提供的反貪污培訓。	
Aspect B8: Community Investment		
層面B8：社區投資		
General Disclosure	Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests.	P. 158-164
一般披露	有關以社區參與來了解營運所在社區需要和確保其業務活動會考慮社區利益的政策。	
KPI B8.1	Focus areas of contribution (e.g. education, environmental concerns, labour needs, health, culture, sport).	P. 158-164
關鍵績效指標 B8.1	專注貢獻範疇(如教育、環境事宜、勞工需求、健康、文化、體育)。	
KPI B8.2	Resources contributed to the focus area.	P. 158, 176
關鍵績效指標 B8.2	在專注範疇所動用資源。	

# Appendix III: GRI Content Index

## 附錄三：GRI內容索引

Statement of use	Beijing Energy International Holding Co., Ltd. has reported the information cited in this content index for the period from 1 January 2024 to 31 December 2024 with reference to the Global Reporting Initiative (GRI) Standards.
使用說明	北京能源國際控股有限公司在二零二四年一月一日至二零二四年十二月三十一日參照全球報告倡議組織(GRI)標準報告了在此份內容索引中引用的信息。
GRI Standards used	GRI 1: Foundation 2021
使用的GRI	GRI 1：基礎2021

### GRI 2: GENERAL DISCLOSURES 2021

#### GRI 2：一般披露2021

Indicator	Description	Page/Remarks
指標	描述	頁碼／備註
The organisation and its reporting practices		
組織及其報告做法		
2-1	Organisational details 組織詳細情況	P. 7
2-2	Entities included in the organisation's sustainability reporting 納入組織可持續發展報告的實體	P. 5
2-3	Reporting period, frequency and contact point 報告期、報告頻率及聯繫人	P. 5, 194
2-4	Restatements of information  信息重述	The data on hazardous waste generation and attendances of occupational health and safety training have been restated. For relevant information, please refer to "Appendix I: Overview of ESG Key Performance Indicators". 重述有害廢棄物產生量及職業健康與安全培訓統計人次，有關資料請參閱「附錄一：ESG關鍵績效指標概覽」。
2-5	External assurance 外部鑒證	P. 165-168



Indicator 指標	Description 描述	Page/Remarks 頁碼／備註
<b>Activities and workers</b> 活動和工作		
2-6	Activities, value chain and other business relationships 活動、價值鏈和其他業務關係	P. 5, 7
2-7	Employees 僱員	P. 102-103
2-8	Workers who are not employees 僱員之外的工作者	No workers other than employees. 沒有僱員之外的工作者
<b>Governance</b> 管治		
2-9	Governance structure and composition 管治架構和組成	2024 Annual Report – Report of Corporate Governance 二零二四年年報－企業管治報告
2-10	Nomination and selection of the highest governance body 最高管治機構的提名與遴選	2024 Annual Report – Report of Corporate Governance 二零二四年年報－企業管治報告
2-11	Chair of the highest governance body 最高管治機構的主席	2024 Annual Report – Report of Corporate Governance 二零二四年年報－企業管治報告
2-12	Role of the highest governance body in overseeing the management of impacts 在管理影響方面，最高管治機構的監督作用	2024 Annual Report – Report of Corporate Governance 二零二四年年報－企業管治報告
2-13	Delegation of responsibility for managing impacts 為管理影響的責任授權	P. 20-24
2-14	Role of the highest governance body in sustainability reporting 最高管治機構在可持續發展報告中的作用	P. 20-24
2-15	Conflicts of interest 利益衝突	2024 Annual Report – Report of Corporate Governance 二零二四年年報－企業管治報告
2-16	Communication of critical concerns 重要關切問題的溝通	P. 39-40, 109

Indicator 指標	Description 描述	Page/Remarks 頁碼／備註
2-17	Collective knowledge of the highest governance body 最高管治機構的共同知識	2024 Annual Report – Report of Corporate Governance 二零二四年年報－企業管治報告
2-18	Evaluation of the performance of the highest governance body 對最高管治機構的績效評估	2024 Annual Report – Report of Corporate Governance 二零二四年年報－企業管治報告
2-19	Remuneration policies 薪酬政策	2024 Annual Report – Report of Corporate Governance 二零二四年年報－企業管治報告
2-20	Process to determine remuneration 確定薪酬的程序	2024 Annual Report – Report of Corporate Governance 二零二四年年報－企業管治報告
2-21	Annual total compensation ratio <sup>15</sup> 年度總薪酬比率 <sup>15</sup>	<p>a. The ratio of the annual total compensation for the organisation's highest-paid individual to the median annual total compensation for all employees (excluding the highest-paid individual) was 15;</p> <p>b. The ratio of the percentage increase in annual total compensation for the organisation's highest-paid individual to the median percentage increase in annual total compensation for all employees (excluding the highest-paid individual) was 0.39.</p> <p>a. 組織收入最高個人的年度總薪酬與所有僱員（不包括收入最高的個人）年度總薪酬中位數的比率為 15；</p> <p>b. 組織中收入最高的個人年度總薪酬增長百分比與所有僱員（不包括收入最高的個人）年度總薪酬增長比中位數的比率為0.39</p>

<sup>15</sup> Data compilation method: a = the annual total compensation for the organisation's highest paid individual/the median annual total compensation for all employees (excluding the highest-paid individual); b = the percentage increase in annual total compensation for the organisation's highest-paid individual/the median percentage increase in annual total compensation for all employees (excluding the highest-paid individual).

<sup>15</sup> 數據編製方法：a=組織收入最高個人的年度總薪酬／所有僱員（不包括收入最高的個人）年度總薪酬中位數；b=組織中收入最高個人的年度總薪酬增長百分比／所有僱員（不包括收入最高的個人）年度總薪酬增長百分比中位數。

Indicator 指標	Description 描述	Page/Remarks 頁碼／備註
<b>Strategy, policies and practices</b> <b>戰略、政策和實踐</b>		
2-22	Statement on sustainable development strategy 關於可持續發展戰略的聲明	P. 14-18, 33-36
2-23	Policy commitments 政策承諾	P. 20-28, 33-44
2-24	Embedding policy commitments 融合政策承諾	P. 20-28, 33-44
2-25	Processes to remediate negative impacts 補救負面影響的程序	P. 39-40, 109
2-26	Mechanisms for seeking advice and raising concerns 尋求建議和提出關切的機制	P. 39-40, 109
2-27	Compliance with laws and regulations 遵守法律法規	In 2024, we were not subject to any significant fines and non-monetary sanctions due to violations of laws or regulations. 在2024年，我們並無因為違反法律或規例而遭受重大罰款和非金錢制裁。
2-28	Membership associations 協會的成員資格	A member of the Green Energy Ecosystem Organisation. 為綠色能源生態合作組織的成員
<b>Stakeholder engagement</b> <b>持份者參與</b>		
2-29	Approach to stakeholder engagement 持份者參與的方法	P. 24-28
2-30	Collective bargaining agreements 集體談判協議	The Group did not sign any collective bargaining agreements with employees. 本集團沒有和僱員簽署集體談判協定
<b>GRI 3: Material Topics 2024</b> <b>GRI 3：實質性議題2024</b>		
3-1	Process to determine material topics 確認實質性議題的過程	P. 28-32
3-2	List of material topics 實質性議題清單	P. 28-32

Indicator 指標	Description 描述	Page/Remarks 頁碼／備註
<b>GRI 201: Economic Performance 2016</b>		
<b>GRI 201：經濟績效2016</b>		
3-3	Management of material topics 實質性議題的管理	P. 46-57
201-1	Direct economic value generated and distributed 直接產生和分配的經濟價值	P. 46-57
201-2	Financial implications and other risks and opportunities due to climate change 氣候變化帶來的財務影響以及其他風險和機遇	P. 73-82
<b>GRI 203: Indirect Economic Impacts 2016</b>		
<b>GRI 203：間接經濟影響2016</b>		
3-3	Management of material topics 實質性議題的管理	P. 158-164
203-2	Significant indirect economic impacts 重大間接經濟影響	P. 158-164
<b>GRI 205: Anti-corruption 2016</b>		
<b>GRI 205：反腐敗2016</b>		
3-3	Management of material topics 實質性議題的管理	P. 37-44
205-2	Communication and training about anti-corruption policies and procedures 反腐敗政策和程序的傳達及培訓	P. 39-42
205-3	Confirmed incidents of corruption and actions taken 經確認的貪污事件和採取的行動	P. 42
<b>GRI 308: Supplier Environmental Assessment 2016</b>		
<b>GRI 308：供應商環境評估2016</b>		
3-3	Management of material topics 實質性議題的管理	P. 149-156
308-1	New suppliers that were screened using environmental criteria 使用環境準則篩選的新供應商	P. 155



Indicator 指標	Description 描述	Page/Remarks 頁碼／備註
GRI 301: Materials 2016		
GRI 301：物料2016		
3-3	Management of material topics 實質性議題的管理	The Group’s operations do not involve the consumption of packaging materials. 本集團的營運並不涉及包裝材料的耗用
301-1	Materials used by weight or volume 所用物料的重量或體積	
GRI 302: Energy 2016		
GRI 302：能源2016		
3-3	Management of material topics 實質性議題的管理	P. 88-92
302-1	Energy consumption within the organisation 組織內部的能源消耗量	P. 92, 169
302-3	Energy intensity 能源強度	P. 92, 169
302-4	Reduction of energy consumption 降低能源消耗量	P. 88-92
GRI 303: Water and Effluents 2018		
GRI 303：水資源和污水2018		
3-3	Management of material topics 實質性議題的管理	P. 65-66, 93-94
303-1	Interactions with water as a shared resource 組織與水作為共有資源的互相影響	P. 65-66, 93-94
303-2	Management of water discharge-related impacts 管理與排水相關的影響	P. 65-66
303-4	Water discharge 排水	P. 65-66, 170
303-5	Water consumption 耗水	P. 94, 169
GRI 304: Biodiversity 2016		
GRI 304：生物多樣性2016		
3-3	Management of material topics 實質性議題的管理	P. 84-87
304-2	Significant impacts of activities, products and services on biodiversity 活動、產品和服務對生物多樣性的重大影響	P. 84-87

Indicator 指標	Description 描述	Page/Remarks 頁碼／備註
<b>GRI 305: Emissions 2016</b>		
<b>GRI 305：排放2016</b>		
3-3	Management of material topics 實質性議題的管理	P. 71-83, 88-92
305-1	Direct (Scope 1) GHG emissions 直接(範圍1)溫室氣體排放	P. 83, 170
305-2	Energy indirect (Scope 2) GHG emissions 能源間接(範圍2)溫室氣體排放	P. 83, 170
305-4	GHG emissions intensity 溫室氣體排放強度	P. 83, 170
305-7	Nitrogen oxides (NOx), sulphur oxides (SOx), and other significant air emissions 氮氧化物、硫氧化物和其他重大氣體排放	P. 64, 170
<b>GRI 306: Waste 2020</b>		
<b>GRI 306：廢棄物2020</b>		
3-3	Management of material topics 實質性議題的管理	P. 66-70
306-3	Waste generated 產生的廢棄物	P. 70, 170
306-5	Waste directed to disposal 進入處置的廢棄物	P. 70, 170
<b>GRI 308: Supplier Environmental Assessment 2016</b>		
<b>GRI 308：供應商環境評估2016</b>		
3-3	Management of material topics 實質性議題的管理	P. 155
308-1	New suppliers that were screened using environmental criteria 使用環境準則篩選的新供應商	P. 155
<b>GRI 401: Employment 2016</b>		
<b>GRI 401：僱傭2016</b>		
3-3	Management of material topics 實質性議題的管理	P. 99-113
401-1	New employee hires and employee turnover 新進僱員僱傭率和僱員流失率	P. 103, 173
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees 提供給全職員工(不包括臨時或兼職員工) 的福利	P. 104-108
401-3	Parental leave 育兒假	P. 105, 173

Indicator 指標	Description 描述	Page/Remarks 頁碼／備註
<b>GRI 403: Occupational Health and Safety 2018</b>		
<b>GRI 403 : 職業健康與安全2018</b>		
3-3	Management of material topics 實質性議題的管理	P. 119-130
403-5	Worker training on occupational health and safety 工作者的職業健康安全培訓	P. 124-129, 174
403-9	Work-related injuries 工傷	P. 174
<b>GRI 404: Training and Education 2016</b>		
<b>GRI 404 : 培訓與教育2016</b>		
3-3	Management of material topics 實質性議題的管理	P. 114-118
404-1	Average hours of training per year per employee 每名員工每年接受培訓的平均小時數	P. 175
<b>GRI 405: Diversity and Equal Opportunity 2016</b>		
<b>GRI 405 : 多元化與平等機會2016</b>		
3-3	Management of material topics 實質性議題的管理	P. 20-21, 101-102
405-1	Diversity of governance bodies and employees 管治架構與員工的多元化	P. 20-21, 101-102
<b>GRI 408: Child Labour 2016</b>		
<b>GRI 408 : 童工2016</b>		
3-3	Management of material topics 實質性議題的管理	P. 104
408-1	Operations and suppliers at significant risk for incidents of child labour 具有重大童工事件風險的營運點和供應商	The Group has not identified any significant risk of child labour in its operations. 本集團在營運中沒有發現使用童工的重大風險

Indicator 指標	Description 描述	Page/Remarks 頁碼／備註
GRI 409: Forced or Compulsory Labour 2016		
GRI 409：強迫或強制勞動2016		
3-3	Management of material topics 實質性議題的管理	P. 104
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labour 具有強迫或強制勞動事件重大風險的營運點和供應商	The Group has not identified any significant risk of compulsory labour in its operations. 本集團在營運中沒有發現使用強制勞工的重大風險
GRI 414: Supplier Social Assessment		
GRI 414：供應商社會評估		
3-3	Management of material topics 實質性議題的管理	P. 155-156
414-1	New suppliers that were screened using social criteria 使用社會標準篩選的新供應商	P. 155-156
GRI 416: Customer Health and Safety 2016		
GRI 416：客戶健康與安全2016		
3-3	Management of material topics 實質性議題的管理	The Group is not involved in any incidents of non-compliance concerning the health and safety impacts of products and services. 本集團不涉及產品和服務的健康與安全影響的違規事件
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services 涉及產品和服務的健康與安全影響的違規事件	
GRI 418: Customer Privacy 2016		
GRI 418：客戶隱私2016		
3-3	Management of material topics 實質性議題的管理	P. 139-142
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data 涉及侵犯客戶隱私和丟失客戶資料的經證實的投訴	During the Year, the Group did not receive any related complaints. 於本年度，本集團並無接獲相關投訴



Indicator	Description	Page/Remarks
指標	描述	頁碼／備註
<b>Other Highly Material Topics</b>		
<b>其他高度重要議題</b>		
<b>Response to National Strategies</b>		
<b>響應國家戰略</b>		
3-3	Management of material topics 實質性議題的管理	P. 46-47
N/A	Major measures and progress	P. 46-47
不適用	主要措施及進展	

# Feedback 意見反饋

Dear reader,

Thank you for taking the time to read the 2024 Environmental, Social and Governance Report of Beijing Energy International Holding Co., Ltd. In order to further enhance our ESG management and improve the quality of this report, your comments and suggestions are highly appreciated. We will take your comments and suggestions into full consideration and promise that all information provided will be kept confidential.

You may contact us via:

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Report Team  
April 2025

尊敬的讀者：

非常感謝您在百忙之中閱覽北京能源國際控股有限公司二零二四年環境、社會及管治報告。為進一步提升ESG管理工作和報告的質量，我們誠摯邀請您對本報告提出寶貴的意見與建議。我們將充分考慮您的意見與建議，並承諾妥善保護您的信息不被第三方獲取。

您可通過以下方式聯繫我們：

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報告編寫組  
二零二五年四月

Please rate your level of agreement with the following statements from 1 to 5 (1 being strongly disagree and 5 being strongly agree):

請以1至5表示您是否同意下列陳述（1為完全不同意，5為完全同意）

1. I am satisfied with this report. 我對此報告感到滿意。	
2. This report reflects the Company's impacts on the environment and the society. 這份報告反映 貴公司對環境及社會之影響。	
3. I am satisfied with the ESG performance of the Company. 我對 貴公司的ESG成效感到滿意。	
4. I am satisfied with the disclosure level of this report. 我對此報告的信息披露程度感到滿意。	
5. I am satisfied with the format and design of this report. 我對此報告的版式及設計感到滿意。	

請您在此提出其他意見與建議：

[illegible]

**您的聯繫資料：**

姓名：\_\_\_\_\_

工作單位：\_\_\_\_\_

電話：\_\_\_\_\_

電子郵件：\_\_\_\_\_



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