



京能集團

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

綠色能源
綠色未來
Green Energy
Green Future

2022 Environmental, Social and
Governance Report
環境、社會及管治報告

願景 Vision

To become a first-class international clean energy ecological investment operator

成為一流的國際化清潔能源生態投資運營商

Mission 使命

To build an ecological system of clean energy industry that is green, multi-functional, complementary and intelligently coordinated, and provide full life-cycle services to global energy users through value creation

構建綠色為主、多能互補、智慧協同的清潔能源產業生態體系，通過價值創造為全球能源用戶提供全生命周期服務



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About
this
Report

關於
本報告



This is the eighth Environmental, Social and Governance (“ESG”) Report of Beijing Energy International Holding Co., Ltd. (hereinafter referred to as the “Company” or “BJEI”; 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 2022 annual report of the Company (the “2022 Annual Report”) to fully understand the environmental, social and governance performance of the Group. For the corporate governance section, please refer to pages 52 to 92 of the 2022 Annual Report.

The board (the “Board”) of directors (the “Directors”) of the Company acknowledges its responsibility for ensuring the truthfulness of this report. To the best of its knowledge, this report presents the details of material topics of the Group and its impacts, and the Group’s performance in managing such issues is fairly presented. 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 (“ESG Reporting Guide”) set out in Appendix 27 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 (“GRI”) Sustainability Reporting Standards (“GRI Standards”).

本報告為北京能源國際控股有限公司（於本報告簡稱「本公司」或「公司」或「京能國際」，連同其附屬公司統稱為「本集團」或「我們」）的第八份環境、社會和管治（「ESG」）報告，旨在呈列我們為推動可持續發展和企業社會責任所作出的努力與成效。本報告應與本公司二零二二年年報（「二零二二年年報」）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，請參閱二零二二年年報第52頁至92頁。

本公司董事（「董事」）會（「董事會」）確認其有責任確保本報告的真實性，且就其所知，本報告已詳細披露本集團的實質性議題及其影響，並公正地呈列本集團在管理該等議題的表現。董事會已審閱並通過本報告。

編製依據及原則

本報告乃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」）附錄二十七中所載的《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 “comply or explain” provisions set out in the ESG Reporting Guide, and was prepared on the basis of the reporting principles of “Materiality”, “Quantitative”, “Balance” and “Consistency”. When preparing this report, the Group applied the reporting principles as follows:

本報告已遵守ESG報告指引中有關「不遵守就解釋」的條文，同時以「重要性」、「量化」、「平衡」和「一致性」這四項匯報原則作為編製基礎。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 to ensure that the concerns of stakeholders were addressed in this report. For the detailed assessment process and results of the material topics, please refer to the section headed “4. Sustainability Management Approach” 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實質性議題評估，以識別重大的ESG議題，並確保已於本報告回應持份者的關注。有關實質性議題的詳細評估過程及結果請參見本報告「4.可持續發展管理方針」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 II: Overview of Environmental, Social and Governance 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「附錄二：環境、社會及管治關鍵績效指標概覽」章節。

Balance 平衡

In the preparation of this report, the Group focused on an impartial and transparent presentation of its performance in every aspect of sustainable development.

於本報告編寫的過程中，本集團通過公正、透明的方式闡述其可持續發展各方面的表現。

Consistency 一致性

Unless stated otherwise, the statistical methods and criteria applied in this report is consistent with last year. 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.

除非另行說明，本報告採用與往年相同的統計方法及口徑。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 2022 Annual Report, covering from 1 January 2022 to 31 December 2022 (the “Year”). We identified the scope of this report encompassing business operations of the Company and its subsidiaries, in accordance with the 2022 Annual Report.

匯報範圍及期間

本報告涵蓋的時間範圍與二零二二年年報一致，為2022年1月1日至2022年12月31日（「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，與二零二二年年報保持一致。

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 concerns and improving the comprehensiveness of this report. We welcome your feedbacks on this report and on any aspect of our sustainability performance through the feedback form which is available at the back of this report.

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，了解及回應彼等之關注，並提高本報告之全面性。我們歡迎閣下通過本報告背面的反饋表對本報告及我們在可持續發展績效的任何方面進行反饋。



意見反饋

About the
Company

關於
本公司



The Group's business scope covers solar, wind, hydropower, hydrogen, energy storage and integrated energy, and is committed to becoming a first-class international clean energy ecological investment operator. As of 31 December 2022, the Group and its associates owned 107 solar power plants and 21 wind power plants with an aggregate grid-connected installed capacity of approximately 5,827.24 megawatts ("MW"), which had total electricity generation volume (including associates) of approximately 7,228,582 megawatt hours ("MWh") in 2022. In particular, the Group held 125 power plants with an aggregate grid-connected installed capacity of approximately 5,603.44MW, which had total electricity generation volume of approximately 7,141,204MWh.

The Group's business covers more than 20 provinces and municipalities across China, as well as overseas new energy markets such as Australia, Vietnam and Regional Comprehensive Economic Partnership (RCEP) countries. During the Year, the Group continued to accelerate the pace of scale expansion of clean energy by actively expanding the management scale of the solar power and wind power businesses through self-development and mergers and acquisitions, as well as continuously improving the management of its clean energy power business. The Group had well-diversified its solar and wind power plants in China in 23 different provinces during the Year.

本集團業務範圍涵蓋太陽能、風能、水能、氫能、儲能、綜合能源等領域，致力成為一流的國際化清潔能源生態投資運營商。截至2022年12月31日，本集團及其聯營公司共持有107個太陽能發電站及21個風力發電站，總併網裝機容量約5,827.24兆瓦（「兆瓦」），2022年包括聯營公司的總發電量約為7,228,582兆瓦時（「兆瓦時」）。其中，本集團持有125個發電站，總併網裝機容量約5,603.44兆瓦，總發電量約為7,141,204兆瓦時。

本集團業務範圍遍佈全國20多個省市自治區，以及澳洲、越南、區域全面經濟夥伴協定(RCEP)國家等海外新能源市場。於本年度，本集團繼續加快清潔能源規模化的步伐，積極通過自主開發及併購拓展太陽能及風力發電業務的管理規模，並不斷提升對清潔能源發電業務的管理水平。於本年度，本集團位於中國的太陽能及風力發電站遍佈23個不同省份。



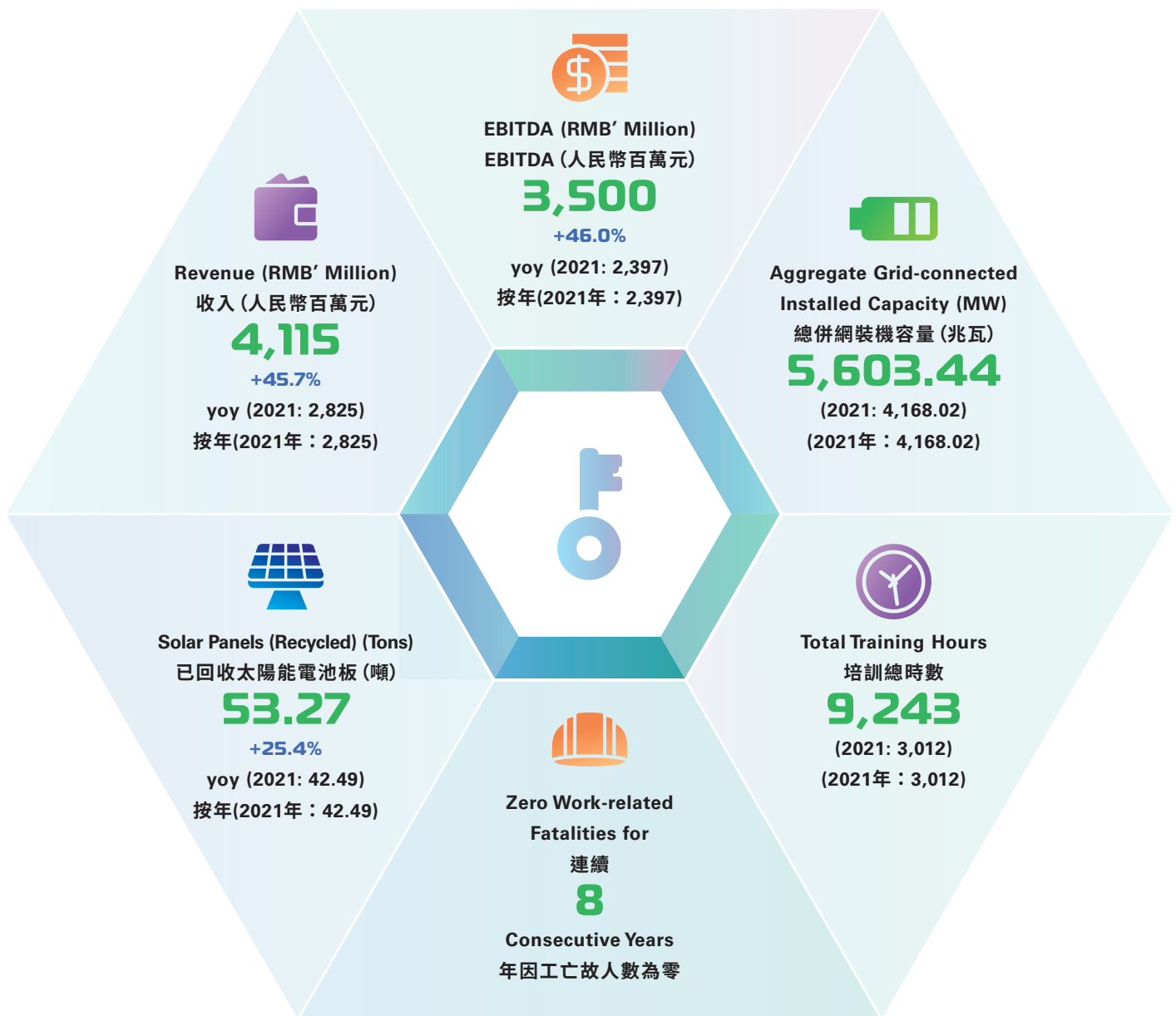
- | | | |
|-----|----------------|-----|
| 1. | Hebei | 河北 |
| 2. | Jilin | 吉林 |
| 3. | Shandong | 山東 |
| 4. | Shanxi | 山西 |
| 5. | Henan | 河南 |
| 6. | Inner Mongolia | 內蒙古 |
| 7. | Shaanxi | 陝西 |
| 8. | Ningxia | 寧夏 |
| 9. | Gansu | 甘肅 |
| 10. | Anhui | 安徽 |
| 11. | Zhejiang | 浙江 |
| 12. | Hubei | 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. | Tibet | 西藏 |
| 20. | Xinjiang | 新疆 |
| 21. | Beijing | 北京 |
| 22. | Heilongjiang | 黑龍江 |
| 23. | Jiangxi | 江西 |

In the future, leveraging on its resources and technologies, the Group will endeavor to lead the development of new energy industry, further promote the joint development and sharing of low-carbon and clean energy around the world. For more details of the Group's development over the years, please refer to the Company's official website.

未來，本集團將繼續運用其資源與技術優勢，致力引領新能源行業的發展，進一步推動全球低碳清潔能源的共建共用。有關本集團歷年的詳細發展，請參閱本公司官網。

KEY FIGURES FOR FY2022

2022財政年度關鍵數據



TOTAL ELECTRICITY GENERATION VOLUME (INCLUDING ASSOCIATES) FOR 2022

2022年總發電量(包括聯營公司)



The total electricity generation volume
(including associates) for 2022 is

7,228,582 MWh,

equivalent to:

2022年的總發電量(包括聯營公司)為

7,228,582 兆瓦時，

相當於：



Saving

2,204 Thousands Tons

of Standard Coal

節約

220.4 萬噸

標準煤



Reducing

6,014 Thousands Tons

of Carbon Dioxide Emission

減排

601.4 萬噸

二氧化碳



Reducing

217 Thousands Tons

of Sulphur Dioxide Emission

減排

21.7 萬噸

二氧化硫



Reducing

3,614 Tons

of Soot Emission

減排

3,614 噸

煙塵



Planting

328,644 Thousands

of Trees

種植

32,864.4 萬棵

樹



Providing

4,819 Thousands Household's

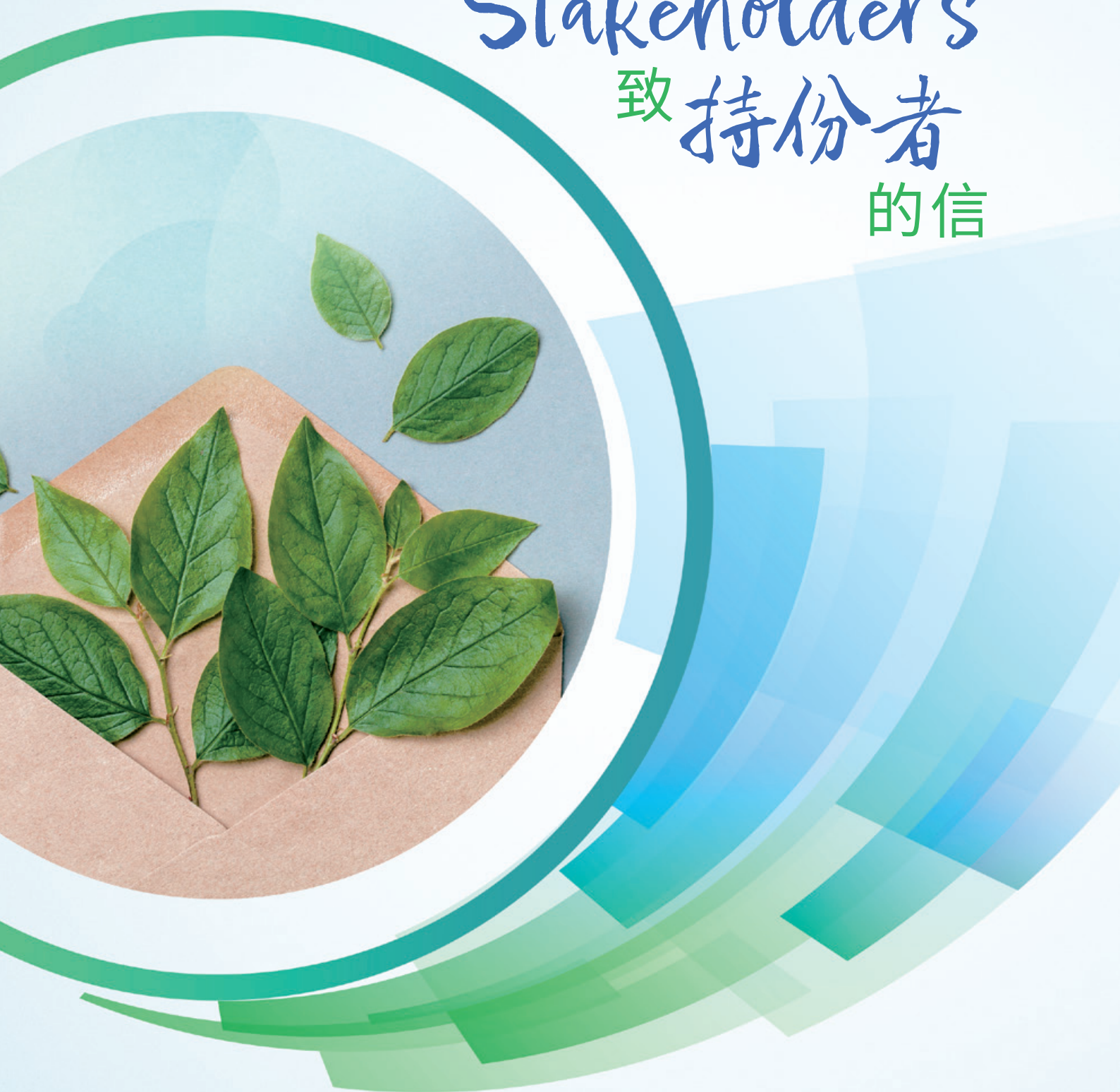
Electricity Consumption in a Year

提供

481.9 萬戶居民

一年的用電量

Letter
to Stakeholders
致持份者
的信



Dear Valued Stakeholders:

2022 is a crucial year in carrying out the “14th Five-Year Plan” and a year for the Company to set sail. Relying on continuous improvement of core competitiveness, we strive to realise the vision of “becoming a first-class international clean energy ecological investment operator” and contribute to sustainable development.

During the Year, we contributed to the green transformation of national energy by focusing on the development of clean energy projects. Relying on our own advantages, the Company continued to promote the “green power into Beijing”, increased the development of large-scale base projects, and accelerated the deployment of integrated energy and energy storage business. We continued to strengthen cooperation with our strategic partners and work together to create a win-win situation. During the Year, we focused on the in-depth development of our existing business regions such as Australia, Vietnam and RCEP countries, and actively expanded overseas markets to promote business development.

In our operation, we ensure that our environmental impact is effectively managed. We are committed to reducing the impact of our operation on the environment through the implementation of energy saving, emission reduction and environmental protection measures. In addition, the frequent occurrence of extreme weather brought by climate change may have a certain impact on our operation in the future. In this regard, the Company is actively identifying and managing the risks and opportunities arising from climate change, and continues to enhance its mitigation and adaptation capabilities, which will be disclosed in this report.

Adhering to the core value of “people-oriented”, the Company advocates the common growth of corporate value and employee value, and constantly attracts and cultivates talents. In 2022, the Company established a “Learning Cloud” learning platform to improve employee training management and provide a variety of training courses to cultivate a professional talent team. In addition, we attach great importance to the safety and sense of belonging of our employees. During the Year, we continued to improve the safety production management system, and ensured the safety production through hidden danger investigation, special rectification, safety training and other measures. We also continued to carry out cultural activities to care for our employees from life, emotion and growth, so as to realise the common growth of employees and the Company.

尊敬的各位持份者：

2022年是「十四五」承上啟下的重要一年，亦是本公司揚帆起航的一年。我們依靠持續提升核心競爭力，為實現「成為一流的國際化清潔能源生態投資營運商」的願景而努力奮鬥，為可持續發展貢獻力量。

於本年度，我們通過著力發展清潔能源項目，助力國家能源綠色轉型。依託自身的優勢，本公司持續推動「綠電進京」，加大規模化基地項目的開發，加快綜合能源和儲能業務佈局。我們繼續加強與戰略夥伴的合作，一起攜手並進，創造雙贏。於本年度，我們聚焦澳洲、越南和RCEP國家等既有業務區域深度開發，積極拓展海外市場，推動業務發展。

在運營過程中，我們確保對環境所產生的影響受到有效管理。通過實施節能減排和環境保護措施，我們致力於減少自身營運對環境造成的影響。另外，氣候變化所造成的極端天氣頻繁發生，未來或可能對我們運營產生一定的影響。就此，本公司積極識別及管理氣候變化所帶來的風險與機遇，持續提升緩解及適應能力，並將於本報告裡作出披露。

秉承「以人為本」的核心價值，本公司倡導企業價值與僱員價值共同成長，不斷吸納及培養人才。2022年，本公司建立起「學習雲」學習平台，完善僱員培訓管理，以及提供多樣化培訓課程，以培養專業人才隊伍。另外，我們重視僱員安全與歸屬感。於本年度，我們持續健全安全生產管理體系，通過隱患排查，專項整治，安全培訓等措施，切實保障安全生產。我們亦繼續開展文化活動，從生活、情感、成長等多個環節關懷員工，實現僱員與公司共同成長。

Innovation is the driving force of the development of enterprises. The Company actively improves its technological innovation system and organisational construction, builds a technological innovation platform, promotes the development and implementation of technological innovation, and continuously enhances its corporate strength. Since its establishment, the Company has obtained a number of invention patents, utility model patents and software copyright patents. At the same time, we have been pursuing excellence in operation, comprehensively improving the level of production, operation and engineering construction, optimising supplier risk management, strictly screening qualified suppliers, and implementing green and sustainable procurement.

As a responsible enterprise, the Company has always adhered to high standards of moral value and strived to create value for all stakeholders. Internally, we continue to improve our management and organisational structure, strictly regulate the behaviours of all employees and partners, continuously strengthen risk management, and adhere to compliance operation. Externally, we actively participate in community building, fulfill our social responsibilities, and promote the common prosperity and coordinated development of the community. Looking forward, BJEI will continue to deepen its main business, strive to achieve high-quality development, and strive to build a clean energy industrial ecosystem “dominated by green energy, complemented by multiple energy sources and characterised by smart collaboration”, to start a new journey of sustainable development.

Zhang Ping

Chairman

創新是企業發展的動力源泉。本公司積極完善科技創新制度及組織建設，搭建科技創新平台，推動科技創新的開展與落實，不斷增強企業實力。自成立以來，本公司已獲得多項發明專利、實用新型專利和軟件著作權專利。與此同時，我們一直追求卓越營運，全面提升生產、經營和工程建設水平，優化供應商風險管理，嚴格篩選合資格的供應商，落實綠色及可持續採購。

作為負責任的企業，本公司始終堅守高標準的道德價值，竭力為各持份者創造價值。對內，我們持續完善自身管理組織架構，嚴格規範全體僱員及合作夥伴的行為，不斷強化風險管理，恪守合規營運。對外，我們積極投身社區建設，履行社會責任，推動社區共榮與協同發展。展望未來，京能國際將繼續深耕主業，致力實現高質量發展，努力構築「綠色為主、多能互補、智慧協同」的清潔能源產業生態體系，啟動可持續發展的新征程。

張平

主席



Sustainability Management Approach

可持續
發展
管理方針



BOARD STATEMENT

The Company has integrated the concept of sustainable development into its business development and operation and deeply cultivates the clean energy industry chain. The core business coincides with the seventh of United Nations Sustainable Development Goals (“SDGs”) – affordable and clean energy. Against the background of the China’s Double-Carbon Policy, the Group accelerates the transition to an affordable and reliable sustainable energy system by investing in and operating clean energy, optimising clean energy technology and infrastructure. Over the past two years, the Group’s total electricity generation volume has grown rapidly, helping to significantly increase the proportion of clean energy in the global energy structure by 2030.

The Board is the highest governance body to monitor sustainable development of the Group and is responsible for overseeing the strategic direction of the Company’s sustainable development, including significant ESG-related risks and opportunities, as well as supervising the completion of objectives and fulfilling accountability. The Board has delegated the responsibility for implementing sustainability related issues of the Company to a cross-departmental ESG reporting team, which is managed by the chief executive officer of the Company. The Board also assumes full responsibility for the ESG report, identifying material topics of the Company. They ensure truthfulness, compliance and effectiveness of the Company’s disclosures by reviewing and approving ESG report.

During the Year, we were awarded the Environmental Contribution Award at the 2022 KPMG’s first “Future • ESG” Awards. The winning of this award is a full recognition of BJEI’s in-depth practice of the concept of environmental protection and the construction of ecological civilisation. In the future, the Company will make persistent efforts, continue to rely on its core business, deeply connect corporate development with social responsibility, and implement the Company’s sustainable development philosophy with practical actions.

董事會聲明

本公司將可持續發展理念融入經營發展與業務營運中，深耕清潔能源產業鏈，核心主業與第七個聯合國可持續發展目標（「SDGs」）-經濟適用的清潔能源不謀而合。在國家雙碳政策的背景下，本集團通過投資運營清潔能源，優化清潔能源技術和基礎設施，加快推動向負擔得起的、可靠的可持續能源系統過渡。過去兩年，本集團的總發電量增長迅猛，對於2030年大幅增加清潔能源在全球能源結構中的比例起助力作用。

董事會乃本集團監督可持續發展的最高管治機構，負責監督本公司的可持續發展戰略方向，包括重大ESG相關的風險及機遇，以及監督目標完成情況並履行問責。董事會授權跨部門ESG報告團隊負責執行本公司之可持續發展相關事宜，並由本公司首席執行官負責管理。董事會亦對ESG報告承擔全部責任，確認本公司的實質性議題，並通過審閱及批准ESG報告，確保本公司信息披露的真實、合規及有效。

於本年度，我們榮獲2022畢馬威首屆「未來•ESG」大獎環境貢獻獎。本次獎項的獲得是對京能國際在深入踐行環保理念與生態文明建設方面的充分認可。未來，本公司將再接再厲，繼續依託核心業務，把企業發展與社會責任深度連接，以實際行動落實本公司可持續發展理念。



MAJOR ESG ISSUES OF BJEI

Every year, the Company maintains communication with stakeholders through various communication channels and platforms such as annual report, ESG report, surveys, seminars, conferences and WeChat official accounts, incorporating feedback and concerns from all parties on the Company's sustainable development and continuously updating ESG-related risks and opportunities.

Assessment of Material Topics for 2022

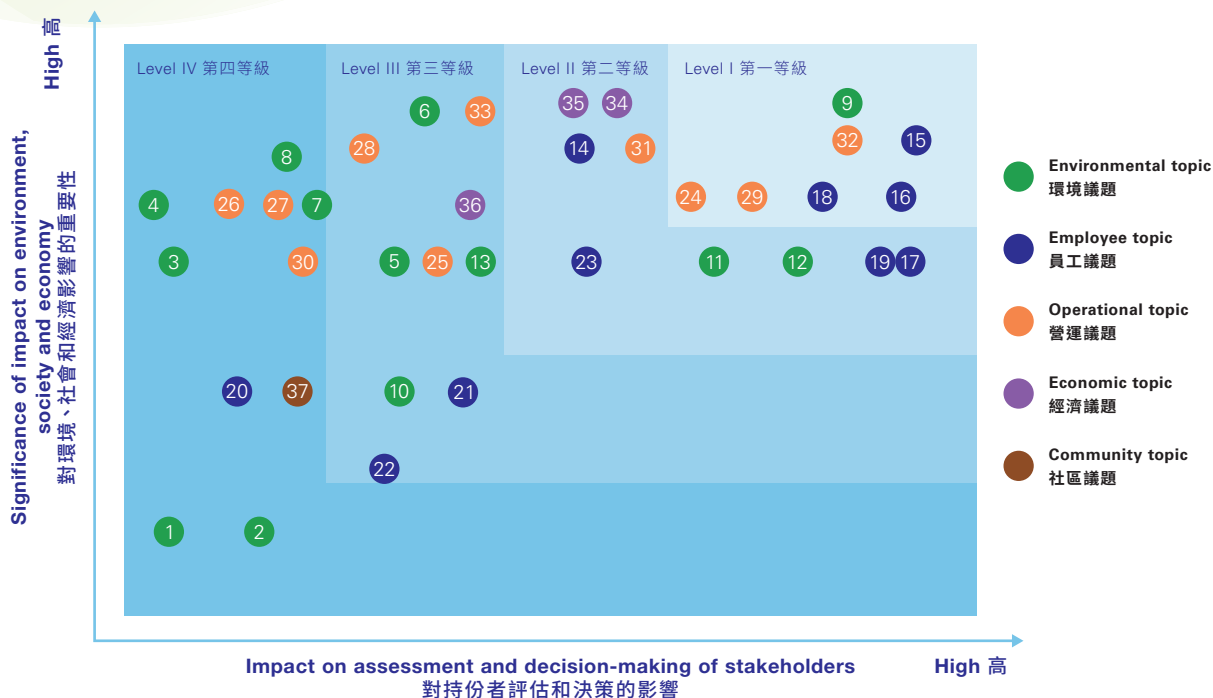
By implementing the "Materiality" reporting principle, we engaged internal and external stakeholders in a materiality assessment, so as to identify ESG topics that have a significant impact on the long-term success of the Company and on the environment, society and economy as a result of the Group's operation. In accordance with ESG Reporting Guide, GRI Standards, the industry-focused issues of the MSCI's ESG Rating, and peer analysis, we ensured that the topics assessed were comprehensive. Afterwards, we sorted through the online questionnaire survey to obtain the order of material topics, and presented in the matrix graphics below. The Board has reviewed and confirmed the evaluation results of the material topics.

京能國際的ESG重大議題

本公司每年均通過年報、ESG報告、調研、研討會、會議及微信公眾號等多種溝通渠道和平台與持份者保持交流，結合各方對本公司可持續發展的反饋與關注，持續更新ESG相關的風險與機遇。

2022年度實質性議題評估

通過實踐「實質性」匯報原則，我們邀請各內部和外部持份者參與實質性議題評估，以識別對本公司長遠成功產生重大影響及因本集團營運而對環境、社會及經濟產生重大影響的ESG議題。根據ESG報告指引、GRI標準、明晟ESG評級對於行業關注的議題，以及同業分析等，我們確保所評估的議題覆蓋全面。之後，我們透過線上問卷調查的形式得出重大議題的先後秩序，並以下列矩陣圖表呈現。董事會已審閱並確認此次實質性議題評估結果。



Level I 第一等級	Level II 第二等級	Level III 第三等級	Level IV 第四等級
<ul style="list-style-type: none"> 9 Clean energy opportunities 清潔能源機遇 15 Employee safety and health 員工安全與健康 16 Employee training and development 員工培訓與發展 18 Employee communication 員工溝通 24 Supply chain management 供應鏈管理 29 Information privacy and security 信息隱私與安全 32 Business ethics 商業道德 	<ul style="list-style-type: none"> 11 Environmental benefits 環境效益 12 Environmental impact assessment for projects under construction 在建項目環境影響評估 14 Talent management 人才管理 17 Employee benefits and interests 員工福利與權益 19 Employee diversity and equal opportunities 員工多元化與平等機會 23 Protecting human rights 保障人權 31 Technology research and development (R&D) and innovation 技術研發與創新 34 Operational compliance 經營合規 35 Risk management 風險管理 	<ul style="list-style-type: none"> 5 Greenhouse gas emissions 溫室氣體排放 6 Environmental compliance 環境合規 10 Environmental input and education 環保投入與教育 13 Tackling climate change 應對氣候變化 21 Employee introduction and retention 員工引進與留存 22 Anti-discrimination 反歧視 25 Green procurement 綠色採購 28 Customer satisfaction 客戶滿意度 33 Anti-corruption 反貪腐 36 Economic performance of the Company 公司經濟表現 	<ul style="list-style-type: none"> 1 Water consumption 水資源消耗 2 Energy and resource management 能源與資源管理 3 Emissions management 排放物管理 4 Waste management 廢棄物管理 7 Protecting ecological environment and biodiversity 保護生態環境與生物多樣性 8 Protecting land resources 保護土地資源 20 Prevention of child labour and forced labour 預防童工及強制勞工 26 Product responsibilities 產品責任 27 Managing product and service quality 產品和服務質量管理 30 Intellectual property protection 知識產權保護 37 Community engagement and participation 社區投入與參與

The topics in the matrix were divided into four levels, of which the topics in Level I were the Group's material topics. The Group's material topics in 2022 focusing on clean energy opportunities, employee safety and health, employee training and development, employee communication, supply chain management, information privacy and security and business ethics. BJEI will continue to pay attention to the latest development of the industry and the needs and expectations of various stakeholders, as well as regularly review and revise the list of topics.

矩陣中的議題分為四個等級，其中第一等級的議題為本集團的重要性議題。2022年本集團的重要性議題聚焦於清潔能源機遇、員工安全與健康、員工培訓與發展、員工溝通、供應鏈管理、信息隱私與安全及商業道德。京能國際將繼續關注行業的最新發展及各持份者的需求和期望，定期檢討及修訂議題庫。

CONTRIBUTE TO THE UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS

貢獻聯合國可持續發展目標

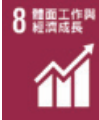
We have been benchmarking our ESG action plan against the United Nations SDGs, so that stakeholders can have a more intuitive understanding of our Company's ESG-related measures. We summarised the key concerns of various stakeholder groups and responded with actions taken in 2022, details are set out in the table below.

我們一直將ESG行動計劃對標聯合國SDGs，務求令持份者對於本公司的ESG相關舉措有更直觀的了解。我們總結各持份者群體的主要關注事項，並以2022年落實的行動回應，詳見下表。

Corresponding Sustainable Development Goals 對應可持續發展目標	2022 Actions of Contributing to the Sustainable Development Goals 貢獻可持續發展目標之2022年行動
<div data-bbox="204 1159 328 1280"> <p>7 負擔得起的 清潔能源</p> </div> <div data-bbox="352 1159 671 1224"> <p>Clean Energy Opportunities 清潔能源機遇</p> </div> <div data-bbox="352 1235 782 1597"> <p>7.1 By 2030, ensure universal access to affordable, reliable and modern energy services. 到2030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. 到2030年，大幅增加清潔能源在全球能源結構中的比例。</p> </div>	<ul style="list-style-type: none"> The total electricity generation volume of the Group and its associate for the Year was approximately 7,228,582MWh 本年度本集團及其聯營公司之總發電量約為7,228,582兆瓦時 Continued to build 15 new energy projects, with aggregate installed capacity of approximately 1,329.32MW and aggregate grid-connected installed capacity of approximately 1,176.62MW 續建新能源項目15個，總裝機容量約為1,329.32兆瓦及總併網裝機容量約為1,176.62兆瓦 Built 14 new energy projects, with aggregate installed capacity of approximately 691.216MW and aggregate grid-connected installed capacity of approximately 285.2MW 新建新能源項目共14個，總裝機容量約為691.216兆瓦及總併網裝機容量約為285.2兆瓦

Corresponding Sustainable Development Goals 對應可持續發展目標

2022 Actions of Contributing to the Sustainable Development Goals 貢獻可持續發展目標之2022年行動



Employee Safety and Health 員工安全與健康

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. 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。

- Carried out safety production training courses, “BJEI” safety knowledge competition, safety knowledge lectures, fire drills and other safety-related training and drill activities 開展安全生產培訓班、「京能國際」杯安全知識競賽、安全知識講座、火災演練等安全相關培訓及演練活動
- Organised psychological counseling lectures on “Psychological Adjustment for Anti-epidemic” 組織開展「抗疫情 心調試」心理疏導講座



Employee Training and Development 員工培訓與發展

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. 到2030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。

- Compiled the Measures for Talent Evaluation & Recommendation and Appointment Management to build a channel for talent development 編製《人才評價及推薦任用管理辦法》，建設人才發展通道
- Created a “Learning Cloud” learning platform with a variety of practical online courses 打造「學習雲」學習平台，多種實用線上課程



Business Ethics 商業道德

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。

- Revised the Measures for Compliance Consultation and Reporting Management, clarified the reporting management process, and set up multiple reporting channels 修訂《合規諮詢與舉報管理辦法》，明確舉報管理流程，並設立多條舉報渠道
- Organised anti-corruption training to raise employee awareness 舉辦反貪污培訓，提高僱員意識

**Corresponding Sustainable
Development Goals**
對應可持續發展目標

**2022 Actions of Contributing to the
Sustainable Development Goals**
貢獻可持續發展目標之2022年行動

Information Privacy and Security
信息隱私與安全

- Promoted legalisation of software and set up a leading group for legalisation of software
推行軟件正版化工作，並成立軟件正版化工作領導小組
- Organised a series of “National Cyber Security Promotion Week” activities and carried out training related to cyber security
舉辦「國家網絡安全宣傳周」系列活動，開展網絡安全相關培訓

Employee Communication
員工溝通

- Built corporate culture from four aspects, including ideological construction, self-efficacy construction, caring for women, and warmth and concern, and carried out 36 cultural and sports activities
從思想建設、自我效能建設、關愛女性、溫暖關懷等四方面建設企業文化，並開展36次文藝活動和體育活動
- Compiled the Measures for Staff Workplace Discipline Management to ensure the rights and interests of employees to appeal
編製《員工職場紀律管理辦法》，確保僱員申訴權益

Supply Chain Management
供應鏈管理

- Implemented strict supplier inclusion, exclusion, evaluation and audit standards, and conducted supervision and management
實施嚴格的供應商准入、准出、評估及審核標準，並進行監督和管理

Focus on

Clean
Energy

聚焦

清潔
能源



PROVIDE CLEAN ENERGY

The Group has been actively engaged in the development and operation of solar power and wind power generation, and other clean energy projects for a long time, with its business scope covering the entire clean energy industry chain including photovoltaic power generation, wind power, hydropower, hydrogen energy, energy storage and integrated energy. During the Year, the Group and its associates held 107 solar power plants and 21 wind power plants with an aggregate grid-connected installed capacity of approximately 5,827.24MW. The total electricity generation volume (including associates) during the Year was approximately 7,228,582MWh. In particular, the Group held 125 power plants with an aggregate grid-connected installed capacity of approximately 5,603.44MW, which had total electricity generation volume of approximately 7,141,204MWh.

提供清潔能源

本集團長期以來積極投身於太陽能及風力發電以及其他清潔能源項目的開發與運營之中，業務範圍涵蓋光伏發電、風能、水能、氫能、儲能、綜合能源等清潔能源全產業鏈。於本年度，本集團及其聯營公司共持有107個太陽能發電站及21個風力發電站，總併網裝機容量約5,827.24兆瓦。於本年度包括聯營公司之總發電量約為7,228,582兆瓦時。其中，本集團持有125個發電站，總併網裝機容量約5,603.44兆瓦，總發電量約為7,141,204兆瓦時。



The Group firmly believes that further transformation of renewable and clean energy is the key to tackling future climate change. We insist on strategic development, construction and acquisition of power plants, and select power plants based on a combination of factors, including natural resources, solar irradiation and wind velocity of the site, applicable feed-in tariffs, government subsidies, conditions for local grid connection, electricity transmission infrastructure and demand for electricity. During the Year, the Group continued to build 15 new energy projects which had not yet completed the construction in last year, with aggregate installed capacity of approximately 1,329.32MW and aggregate grid-connected installed capacity of approximately 1,176.62MW. A total of 14 new energy projects were newly built during the Year, with aggregate installed capacity of approximately 691.26MW and aggregate grid-connected installed capacity of approximately 285.2MW. During the Year, 11 new projects are planned to be started, with aggregate installed capacity of approximately 2,891.99MW.

In the short term, the Group will remain focused on the development of solar power and wind power generation businesses while endeavouring to diversify clean energy portfolios to complement multiple energy supplies for the benefit of more people in the long run. During the Year, the total electricity generation volume of the Group was sufficient to support one-year electricity usage of 4,819 thousands households.

本集團堅信深入推進可再生清潔能源轉型是應對未來氣候變化的關鍵。我們堅持有策略地開發、建設及收購發電站，在選定發電站時綜合考慮當地的自然資源情況、光照情況及風速大小、適用的上網電價、政府補貼、當地的併網條件、輸電基礎設施及電力需求等因素。於本年度，本集團續建新能源項目15個（去年仍未竣工），總裝機容量約為1,329.32兆瓦及總併網裝機容量約為1,176.62兆瓦。本年度新建新能源項目共14個，總裝機容量約為691.26兆瓦及總併網裝機容量約為285.2兆瓦。本年度擬新開工11個項目，項目總裝機容量約為2,891.99兆瓦。

短期內，本集團仍將集中精力發展太陽能及風力發電業務，並加強清潔能源組合的多樣性，從長遠角度補充多種能源供應，造福更多民眾。於本年度，本集團的總發電量足夠為481.9萬戶居民供應整年的電力使用。

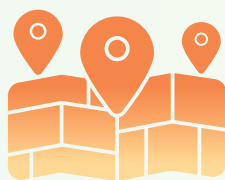


4

national clean energy
"top-runner"
demonstration base projects

4個

國家級清潔能源
「領跑者」示範基地項目



23

provinces covered by
the Group's clean energy power
plant projects

23個

本集團旗下清潔能源電站
項目覆蓋省份



6

Panda Power Plants

6個

熊貓電站

The table below shows the positive environmental effect of our clean energy generation.

下表顯示我們的清潔能源發電為環境帶來的正面影響。

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Total electricity generation volume (MWh) 總發電量(兆瓦時)	34,939	485,046	859,730	1,345,830	2,115,253	3,109,894	3,172,916	2,795,834	3,879,751	7,228,582
Approximately equivalent to: 大約相當於：										
Standard coal saved (Tons) 節約標準煤(噸)	11,530	160,065	283,725	444,124	700,000	1,020,000	1,260,000	855,500	1,183,000	2,204,000
Carbon dioxide emissions reduced (Tons) 減少二氧化碳排放(噸)	29,978	416,169	737,684	1,154,722	1,815,000	2,680,000	3,160,000	2,340,000	3,228,000	6,014,000
Nitrogen oxide emissions reduced (Tons) 減少氮氧化物排放(噸)	269	3,735	6,620	10,363	16,287	26,000	47,000	22,400	31,038	57,800
Soot emissions reduced (Tons) 減少煙塵排放(噸)	17	243	430	673	1,058	1,567	1,586	1,398	1,940	3,614

TACKLE CLIMATE CHANGE

Climate change has become a major challenge faced by human beings around the world. As a responsible enterprise, the Group actively respond to and manage the impact of climate change. During the Year, we began to disclose with reference to the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), so as to identify climate change-related risks and opportunities that may have a significant impact on the Group's operation, as well as the corresponding financial impacts.

應對氣候變化

氣候變化已成為全球人類面臨的重大挑戰。作為負責任的企業，本集團積極應對及管理氣候變化帶來的影響。於本年度，我們開始參照氣候相關財務信息披露工作組(TCFD)的建議進行披露，識別可能對本集團的營運有重大影響的氣候變化相關風險和機遇，以及相應的財務影響。

Risk 風險	Aspect 層面	Description of Risk 風險描述	Financial Impact 財務影響
Physical risks 實體風險	Acute 急性	The frequent occurrence of extreme weather events (such as typhoons, floods, etc.) may have a certain degree of impact on the construction and operation of the Group's power plant projects 極端天氣事件(如颱風、洪水等)的頻繁發生可能對本集團電站項目的建設和營運造成一定程度的影響	<ul style="list-style-type: none"> Increase in operating costs 營運成本增加 Decline in income 收入降低
	Chronic 慢性	Chronic risks such as global warming and rising sea levels may cause damage to the facilities and equipments in the Group's power plants 全球變暖、海平面上升等慢性風險可能使本集團電站的設施及設備受到損壞	<ul style="list-style-type: none"> Increase in operating and maintenance costs 經營及維護成本增加
Transition risks 轉型風險	Policies and regulations 政策及法規	Changes in policies related to climate change at home and abroad may cause the Group to invest more costs to ensure compliance 國際內外氣候變化相關政策的改變可能導致本集團投入更多的成本以確保合規	<ul style="list-style-type: none"> Increase in compliance costs 合規成本增加
	Market 市場	The market has higher requirements on the power generation efficiency and power generation cost of new energy projects, and the Group may face more competitive pressure 市場對新能源項目的發電效率及發電成本有更高的要求，本集團可能面臨更多的競爭壓力	<ul style="list-style-type: none"> Decrease in income 收入減少

Risk 風險	Aspect 層面	Description of Risk 風險描述	Financial Impact 財務影響
	Technologies 技術	<p>The update and iteration of emerging technologies related to new energy projects may cause the Group to invest more costs in R&D and the cultivation of professional talents</p> <p>與新能源項目相關的新興科技的更新和迭代可能導致本集團投入更多成本用以研發和培養專業人才</p>	<ul style="list-style-type: none"> • Increase in R&D costs 研發成本增加 • Increase in talent cultivation costs 人才培養成本增加
	Reputation 聲譽	<p>If the Group fails to fulfil its social responsibilities and take appropriate measures to manage the potential impacts of climate change, it may affect the evaluation of the Group by various stakeholders, including investors</p> <p>如果本集團未履行其社會責任，及採取適當措施管理氣候變化帶來的潛在影響，可能影響各持份者包括投資者對本集團的評價</p>	<ul style="list-style-type: none"> • Damage to corporate image 企業形象受損 • Decrease in investment 投資減少
Opportunities 機遇	Market 市場	<p>Against the background of the China's Double-Carbon Policy, the market demand for new energy has increased, which will help the Group expand the market scale of new energy projects and attract more investments</p> <p>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</p>	<ul style="list-style-type: none"> • Increase in investment 投資增加
	Resource efficiency 資源效率	<p>The Group's technological progress in new energy projects can improve the efficiency and quality of new energy development and operation</p> <p>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</p>	<ul style="list-style-type: none"> • Reduction of operating costs 營運成本降低

In order to cope with the physical risks caused by climate change, the Group has formulated special inspection system and contingency plans for natural disaster accidents such as fog, thunderstorm, flood, gale, mudflow, earthquake, geologic hazard, frost and rainstorm in accordance with the Contingency Plan for Natural Disaster Accidents to guide the emergency rescue work of emergency events. We set up an emergency command centre and divided the responsibilities of each working group to effectively manage the emergency rescue work of emergency events. At the same time, we regularly carry out operation safety and emergency drills and rescue training to comprehensively improve the emergency response capabilities of employees. In order to mitigate the transition risks caused by climate change, the Group will improve its ability to adapt to and mitigate climate change, constant improvement of its scientific and technological research and development capabilities, continuous cultivation of professional talents, active performance of social responsibilities and other measures.

PRESERVE LAND RESOURCES

Our business has potential impact on the land surrounding the development site. Through the effective application of scientific management and land restoration measures, the Group does its best to reduce the possibility of negative impacts of clean energy projects on land.

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 agro-forestry regulations.

為應對氣候變化帶來的實體風險，本集團根據《自然災害事故應急預案》，針對大霧、雷暴、洪水、大風、泥石流、地震、地質災害、霜凍、大雨等自然災害事故設立專項檢查制度及事故應急預案，以指導突發事件的應急救援工作。我們搭建應急指揮機構，並劃分各個工作小組職責，以有效管理突發事件的應急救援工作。同時，我們定期開展作業安全和應急演練及救援方面培訓，全面提升僱員突發事件應急處理能力。為緩解氣候變化帶來的轉型風險，本集團會不斷提升科技研發能力、持續培養專業人才、積極履行社會責任等措施，提高氣候變化的適應及緩解能力。

保護土地資源

我們的業務對開發地點周邊的土地具有潛在影響，通過有效應用科學的管理及土地恢復措施，本集團盡最大努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。

Reversing Land Degradation

The Group has been actively taking steps to reverse land degradation. During the Year, we started a number of water and soil restoration projects. In the feasibility study stage of the project, the Group set up a special section on water and soil conservation and an environmental assessment section to ensure that the surrounding environment will not be affected during the construction period.

逆轉土地退化

本集團積極採取措施以逆轉土地退化。於本年度，我們開始多項水土修復工程。在項目的可研階段，本集團設立水土保持專篇及環境評估部分，保證施工建設期不影響周圍環境。

Ningxia Hongsibao Power Plant Water and Soil Restoration Project 寧夏紅寺堡電站水土修復工程



Area 12 Before Restoration
12區修復前



Area 12 After Restoration
12區修復後

Ningxia Hongsibao Power Plant is a mountainous photovoltaic power plant ("PV Power Plant") with complex terrain and many mountain gullies. In the rainy season every year, there are many water and soil erosion parts in the photovoltaic area. Special fees for water and soil restoration are provided to the power plant every year. The photovoltaic module arrays erected will produce a certain range of shading effect on the ground surface, reduce the evaporation of soil water and increase soil moisture in the area covered by photovoltaic arrays. The inclination angle of the photovoltaic module will redistribute the precipitation, and the rainwater will gather and form runoff on the surface of the module, increasing the soil moisture under the module, which is beneficial to the growth of plants. In addition, wastewater from regular cleaning of photovoltaic modules received by ground surface will also increase soil moisture to a certain extent.

寧夏紅寺堡電站為山地光伏電站（「光伏電站」），場區地形複雜，山地溝壑較多，每年雨季，光伏區水土流失部位較多，電站每年都有水土修復的專項費用。架設的光伏組件方陣會對地表產生一定範圍的遮陰效果，使光伏陣列覆蓋區中土壤水分的蒸發量減少，土壤水分新增。光伏組件的傾斜角度會對降水產生再分配，雨水在組件表面匯集，形成組件表面徑流，使組件下方土壤水分新增，有利於植物生長。此外，定期清洗光伏組件的廢水被地表接收後，也會在一定程度上提高土壤水分。

Anhui Huoqiu Huayang PV Power Plant Water and Soil Restoration Project 安徽霍邱華陽光伏電站水土修復工程



In order to reduce water and soil erosion and protect biodiversity, the Anhui Huoqiu Huayang PV Power Plant actively digs and builds drainage ditches in the photovoltaic area and cooperates with agricultural companies to plant crops in the photovoltaic area. This project formulated water and soil restoration plan, carried out water and soil restoration supervision and inspection, and completed stripping and restoration of 8,200 cubic metres, drainage ditches of 3,155 metres and drainage pipes of 1,025 metres, etc.

為減少水土流失和保護生物多樣性，安徽霍邱華陽光伏電站積極在光伏區挖建排水溝並與農業公司合作在光伏區種植作物。該項目制定了水土保持方案，開展了水土修復監理和檢測，完成剝離和回復0.82萬立方米、排水溝3,155米、排水管網1,025米等。

Integration of Photovoltaic Development with Local Industry

In addition to the traditional industry model of PV Power Plants, the Group has been actively exploring innovative models such as “PV + Agriculture” and “PV + Animal husbandry”, realising the integrated use of green energy and land in an intensive and three-dimensional process to maximise the use of land resources, and providing new driving force for the transformation and development of the industry, so as to achieve significant economic and social benefits.

“PV + Animal husbandry”

Ningxia Yanchi Kaineng PV Power Plant is a ground photovoltaic-animal husbandry complementary distributed power plant, which is a distributed photovoltaic power generation project developed by using the combination of the roof and the ground of the breeding base. The power plant covers a total area of about 736 mu, with an installed capacity of 20MW and an average annual effective power generation utilisation hour of up to 1,527.72 hours.

光伏發展與當地產業相結合

在傳統光伏電站產業模式之外，本集團一直積極探索創新「光伏+農業」及「光伏+畜牧業」等新模式，實現綠色能源和土地的集約化、立體化綜合利用，最大限度地利利用土地資源，為產業轉型發展提供新動力，實現顯著的經濟和社會效益。

「光伏+畜牧業」

寧夏鹽池凱能光伏電站屬於地面光牧互補分散式電站，利用養殖基地屋頂與地面相結合模式配套開發的分散式光伏發電項目。該電站總佔地面積約736畝，裝機容量20兆瓦，年平均有效發電利用小時可達1,527.72小時。



“PV + Agriculture”

The 50MW PV Power Plant in Zhucheng City, Shandong Province is an agricultural-photovoltaic complementary project. By planting crops such as wheat under the modules of the power plant, the project effectively used the land and generated income for local farmers.

**「光伏+農業」**

山東諸城50兆瓦光伏電站作為農光互補項目，在電站組件下方種植小麥等農作物，有效利用了土地，為當地農民實現了創收。

As a new type of “agricultural-photovoltaic complementary” photovoltaic composite utilisation project, the Anhui Huoqiu Huayang 107MW PV Power Plant has carried out “PV + ” application projects according to local conditions, which is in line with national, provincial, city, county and other industry development plans at all levels. The power plant covers a total area of about 2,166 mu, with an installed capacity of 107MW, an average annual utilisation hour of 1,194 hours and a total electricity generation volume of approximately 3.19 billion kilowatt-hours (“kWh”) in 25 years. It is estimated that it can provide approximately 127.80 million kWh of electricity to the grid every year. Compared with thermal power with the same power generation volume, it is equivalent to saving 38,000 tons of standard coal and reducing approximately 103,000 tons of carbon dioxide, approximately 24.65 tons of sulphur dioxide emissions and approximately 23.42 tons of nitrogen oxides per year, which has greatly protected the ecological environment and well implemented the concept of green development.

安徽霍邱華陽107兆瓦光伏電站作為新型的「農光互補」光伏複合利用項目，因地制宜，開展「光伏+」應用工程，符合國家、省、市、縣等各級行業發展規劃。該電站總佔地面積約2,166畝，裝機容量107兆瓦，年平均利用小時1,194小時，25年的總發電量約為31.9億千瓦時（「千瓦時」）。預計每年可為電網提供電量約12,780萬千瓦時，與相同發電量的火電相比，相當於每年可節約標準煤3.8萬噸，減少二氧化碳約10.3萬噸、二氧化硫排放量約24.65噸、氮氧化物約23.42噸，故極大程度保護了生態環境，很好地踐行了綠色發展的理念。

Other PV projects

“Hunan Chaling Longhua Agriculture-Animal Husbandry-PV Power Plant Project”

The Longhua Agriculture-Animal Husbandry-PV Power Plant in Chaling County, Hunan Province is located on the roof of the standardised plant of Hunan Longhua Agriculture and Animal Husbandry Development Co., Ltd.* (湖南龍華農牧發展有限公司) at the three breeding bases, including Shilichong and Dongchong, in Chaling County. The concrete roof of the plant is used to lay out photovoltaic components, occupying a roof area of about 120,000 square metres. The power plant with a planned installed capacity of 12MW started grid-connected power generation on 18 January 2022, and 9.44MW has been grid-connected so far.

The grid-connected voltage level of the power plant is low-voltage 380 volts grid-connected, and the power generated is preferentially consumed by Longhua agricultural-animal husbandry plant, while the remaining power is transmitted to the grid, adopting the mode of “self-generating for self-use and feeding the excess to the grid”. The average annual effective power generation utilisation hour of Chaling Longhua PV Power Plant is 955 hours, which means that the annual green energy output of Chaling Longhua PV Power Plant is about 9 million degrees, which is equivalent to saving 2,745 tons of standard coal and reducing 7,488 tons of carbon dioxide emissions. In addition, it can also reduce a large amount of ash and smoke emissions each year, and has obvious energy saving, environmental and social benefits as well as a very positive effect on improving the atmospheric environment.



其他光伏項目

「湖南茶陵龍華農牧光伏電站項目」

湖南茶陵龍華農牧光伏電站位於湖南龍華農牧發展有限公司在茶陵縣十裡沖、東沖等3處養殖基地的標準化廠房屋頂，利用該廠房混凝土屋頂佈置光伏元件，佔用屋頂面積約12萬平方米，計劃裝機容量為12兆瓦，於2022年1月18日已併網發電，直至目前已併網9.44兆瓦。

該電站併網電壓等級為低壓380伏特併網，所發電量優先由龍華農牧廠區消納，剩餘電量輸送到電網，採用「自發自用，餘電上網」模式。茶陵龍華光伏電站平年均有有效發電利用小時為955小時，意味著茶陵龍華光伏電站年產出綠色能源電量約900萬度，相當於節約標準煤2,745噸、減少二氧化碳排放量7,488噸。此外，每年還可以減少大量的灰渣及煙塵排放，具有明顯的節能、環境和社會效益，對改善大氣環境有非常積極的作用。

"Shandong Weihai 23.07MW Distributed PV Project"

The 23.07MW Distributed PV Project in Weihai City, Shandong Province uses the roof of the plant in the local Nantai Industrial Park to develop photovoltaic power generation, which is a concrete manifestation of the effective implementation of the requirements of sustainable social and economic development, and is in line with the strategic direction of the national energy policy. It can reduce the consumption of fossil resources and the environmental pollution caused by the emission of harmful gases due to coal burning and others, and will play a positive role in promoting the rapid development of the local economy.

「山東威海23.07兆瓦分散式光伏項目」

山東威海23.07兆瓦分散式光伏項目利用當地南海工業園區廠房屋頂建設光伏發電，是有效貫徹社會經濟可持續發展要求的具體體現，符合國家能源政策的戰略方向，可減少化石資源的消耗，減少因燃煤等排放有害氣體對環境的污染，對於促進地方經濟快速發展將起到積極作用。

*"Hebei Gaobeidian 8.92MW Distributed PV Project"*

The 8.92MW Distributed PV Project in Gaobeidian City, Hebei Province uses the roofs of schools and kindergartens in counties and villages of and within Gaobeidian City to develop photovoltaic power generation. According to calculations, the project has an average equivalent full load of 1,233.98 hours, and can provide an average of 10,859MWh of green power per year to the grid. The construction of the power plant has good social, environmental and other comprehensive benefits.

「河北高碑店8.92兆瓦分散式光伏項目」

河北高碑店8.92兆瓦分散式光伏項目利用高碑店市、縣、村學校及幼稚園屋頂建設光伏發電。經測算，該項目等效滿負荷平均1,233.98小時，年平均可向電網提供10,859兆瓦時的綠色電能。該電站的建設具有良好的社會、環境等綜合效益。



STRICT ENVIRONMENTAL MANAGEMENT

Responsible environmental management can achieve economic and environmental coexistence. We have been complying with the relevant laws and regulations of the country and formulated the Group's internal environmental management documents based thereon, so as to carry out environmental management more efficiently and achieve sustainable development. The management representative is responsible for coordinating the Group's daily implementation of the environmental management system, with assistance from departments including the project construction command centre, engineering management department and safety production department. The Identification and Evaluation Control Procedure of Environmental Factors provides guidelines for the above-mentioned management power and responsibilities, and can supervise and control business activities, work and services. The Project Construction Monitoring and Measurement Control Procedure standardises the monitoring and measurement of environmental management system implementation at construction sites.

In order to standardise and accelerate the improvement of the Group's standard system and to meet the needs of national standards and international advanced standards, we have formulated the Measures for Environmental Protection Management and the Guidelines of Environmental Protection Technical Supervision. The Measures for Environmental Protection Management helps us to implement comprehensive and systematic environmental protection and management, establish "Three Simultaneities"¹ management system for construction projects, and standardise the acceptance inspection regarding to environmental protection, the construction of major environmental protection governance projects, and the environmental protection management during the production process. While the Guidelines of Environmental Protection Technical Supervision clarifies and provides the scope of technical supervision of environmental protection, the content of and approaches used in environmental protection monitoring, the technical management and assessment indicators for environmental protection supervision.

嚴格環境管理

負責任的環境管理可以實現經濟與環境共存。我們一直遵守國家相關法律法規，並以此為依據制定本集團內部環境管理文件，從而更高效地進行環境管理，實現可持續發展。本集團環境管理體系的日常運作由管理層代表負責協調，包括工程管理事業部及安全生產部負責協助。《環境因素識別與評價控制程序》是以上管理權責的工作細則指引，對經營活動、工程和服務實施監督和控制。《項目施工監視和測量控制程序》則規範項目施工現場的環境管理體系運行的監視和測量。

為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，我們制定《環境保護管理辦法》和《環境保護技術監督導則》。《環境保護管理辦法》有助於我們實行環境保護體系化、系統化管理，建立建設項目「三同時」¹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》明確和規範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。

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

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。

In response to environmental emergencies and according to the Guidelines for Troubleshooting and Treatment of Potential Environmental Emergencies for Enterprises, we require our branches and subsidiaries to carry out regular troubleshooting of environmental protection hazards in light of the actual situation. At the same time, our branches and subsidiaries should prepare contingency plans, and carry out publicity and professional training on a regular basis.

We established the Group's environmental targets for the Year and stipulated strict requirements in four areas, namely, emissions, energy efficiency, water efficiency and waste. We have achieved all of environmental objectives through concerted efforts.

針對環境應急事件，根據《企業突發環境事件隱患排查與治理工作指南》，我們要求下屬分、子公司結合實際情況，定期開展環保隱患排查工作。同時分、子公司要編製應急計劃，並且定期開展宣傳和專業培訓。

於本年度，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。

Environmental Objectives 環境目標		Accomplishment of Objectives 目標完成情況
Emissions 排放	No ecological environment damage incidents, and no excessive discharge of pollutants 不發生生態環境破壞事件，不發生污染物超標排放	Achieved 已完成
Energy efficiency 能源使用效益	Strengthening the management of electricity consumption in plant and energy saving to ensure the average annual comprehensive electricity consumption rate of the plant less than 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 2022, the comprehensive electricity consumption rate of the plant of the Company was 1.55%) 已完成 (2022年公司綜合廠用電率為1.55%)
Water efficiency 用水效益	Strengthening the publicity of water-saving measures and prohibiting water waste 加強節水措施宣傳，杜絕水浪費	Achieved 已完成
Waste 廢棄物	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

During the Year, we were not aware of any violation of relevant laws and regulations² that have a significant impact on the Group relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste.

於本年度，我們並不知悉任何違反有關廢氣及溫室氣體排放、向水及土地排污、有害及無害廢棄物的產生且對本集團造成重大影響的法律及規例²事宜。

² For laws and regulations related to environment, please refer to the section of "Appendix I: Compliance with List of Laws and Regulations on Environmental, Social and Governance".

環境相關法律及規例請參見「附錄一：遵守有關環境、社會及管治的法律及規例清單」章節。

EFFECTIVE RESOURCES CONSERVATION

To improve the energy management system, the safety production department of the Group has formulated the Measures for Energy Conservation Management, which clearly stipulated the corresponding responsibility of the Group, its branches and subsidiaries in energy conservation management. The energy 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 energy conservation, while the branches and subsidiaries shall performed their duties within the stipulated scope of energy conservation management.

During the Year, we have implemented the management system of energy conservation and consumption reduction in office space and a number of environmental protection measures in our power plants and offices. We hope to continuously improve employees' energy-saving awareness and regulate their energy-saving behaviours. In the future, we will keep marching to our development goal of "resource-saving, environment-friendly and safety-guaranteed" and advancing our management philosophy of "safety, health, environmentally friendly and efficiency," thereby to operate power generation in more cost-efficient way, reduce the energy consumption in power generation, and ultimately achieve the sustainable development of the Company.

有效節省資源

為完善能源管理制度，本集團安全生產部已編製《節能管理辦法》，對本集團及其分、子公司節能工作管理作出明確規定。節能管理工作由本集團統一領導，實行分級管理。本集團負責對其分、子公司節能工作的宏觀管理與監督，而分、子公司則在其職責範圍內開展相關的節能管理工作。

於本年度，我們在辦公場所推行節能降耗管理制度，以及在電站及辦公室推行多項節能措施。我們希望不斷提高僱員的節能意識，規範僱員節約能源的行為。未來，我們將繼續努力實現「資源節約型、環境友好型、安全保障型」的發展目標，推進「安全、健康、環保、效益」的管理理念，進一步提高發電經濟運行水平，降低電力生產能耗水平，促進本公司可持續發展。



Energy Saving 節約能源

- Registering the energy conservation registration form with the local government department at the project approval stage, and designing the energy saving scheme for the electrical power supply and distribution system as required. The design ideas include: 1) reasonably selecting the capacity and number of transformers to reduce line loss; 2) improving the power factor of the system by configuring supporting electrical equipment, thereby reducing the energy consumption of the power plants
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) 合理選擇變壓器的容量和台數，以減少線路損耗；2) 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
- 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
- Using LED lights with automatic switch at some power plant bases to avoid energy waste
於部份電站基地採用帶有自動開關的LED燈，避免能源浪費
- Turning off lights and air conditioners as well as other idle electrical appliances that are not in use, and prohibiting the use of everburning lamps and daytime lamps
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



Saving Water Resources 節約水資源

- Posting water saving signs
張貼節水標識
- Using flush toilets to reduce water consumption
採用抽水馬桶以減少用水量
- Setting up collecting basins, water tanks and other facilities in areas with abundant rainfall to save water
在降雨充沛的地區設置集水池、水箱等設施以節約用水
- Making a water use plan and conducting daily supervision according to the plan
制定用水計劃及根據計劃進行日常監督
- Checking the water supply network regularly to prevent leaks
定期檢查供水管網以防止漏水
- Keeping monthly water usage records, and timely preventing improper water usage and proposing rectification measures
保存月度用水記錄，以及時防止不當用水並提出整改措施
- Exploring the possibility of recycling water resources
探尋循環利用水資源的可能



Saving Paper 節約用紙

- Moving to paperless office by fully utilisation of electronic transmission system
推行無紙化辦公，充分使用電子傳輸系統
- Using both sides of all office papers to reduce paper consumption and reduce the number of repeated printing and copying
提倡雙面用紙，降低紙張消耗，減少重覆打印、複印次數
- Setting up waste paper recycling bins and reusing all papers except for confidential and important documents
設置廢紙回收箱，將非機密文件回收作為稿紙使用
- Advocating repair instead of replacement of faulty machine and utilising the waste to extend the life-time of printing machine
提倡修舊利廢，延長打印設備的使用壽命
- Keeping monthly paper usage records and reporting any abnormal usage in a timely manner
保存月度用紙記錄，以及時發現任何異常使用情況

In addition, in terms of improving energy efficiency, we conducted quantitative analysis of electricity consumption to understand the major power consumptions, so as to take targeted measures to reduce power consumption. By studying the policy on electric dispatch network and electric charge, we applied the optimal SVG output method and the frequency conversion technology for cooling fans to reduce the SVG power consumption reasonably. In addition, we also strengthened the electricity management in office and living areas within the station, in particular, we selected advanced energy saving heating equipment in northern regions so as to minimise power consumption.

此外，在提高能源使用效益方面，我們對用電消耗進行量化分析，掌握耗電主要去向，並採取針對性改善耗電的措施。研究電網力調電費收取的政策，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，我們加強站內辦公和生活用電管理，北方地區研究採用節電的先進採暖方式，盡最大努力減少用電浪費。

SVG cooling fan transformation of Shandong Haiyang Power Plant 山東海陽電站SVG散熱風扇改造

The reactive power compensation device of Shandong Haiyang Power Plant has 9 cooling fans, which have been transformed from power frequency operation mode to frequency conversion operation mode, saving power consumptions of about 16,800 kWh for the power plant every year.

山東海陽電站無功補償裝置9個散熱風扇，由工頻運行方式改造為變頻運行方式，每年可節約發電廠用電約1.68萬千瓦時。



Energy Consumption

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, we consumed a total of approximately 63,411.38MWh of energy. The total energy consumption comprised of approximately 95.30%, 4.59% and 0.11% of electricity, gasoline and diesel respectively. Consumption intensity was approximately 8.88MWh per gigawatt hour ("GWh") electricity generated. The annual electricity consumption was equivalent to approximately 0.85% of the total power generation of the Group's power plants. During the Year, the comprehensive electricity consumption rate of the plant of the Group was 1.55%, achieving the target of a comprehensive electricity consumption rate of the plant of less than 1.8% by 2022.

能源消耗

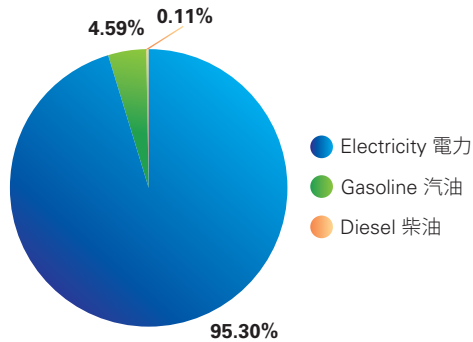
辦公室及發電站所使用的電力、天然氣及燃油為本集團的能源消耗的主要來源。於本年度，我們共計消耗約63,411.38兆瓦時的能源。電力、汽油及柴油的消耗分別佔總能耗的約95.30%、4.59%及0.11%。消耗強度約為每吉瓦時（「吉瓦時」）發電量消耗8.88兆瓦時能源。年度用電量相當於本集團發電站總發電量約0.85%。於本年度，本集團綜合廠用電率為1.55%，達成了2022年綜合廠用電率低於1.8%的目標。

Energy Consumption	Unit	YoY Change (approximate)		
能源消耗	單位	2021	2022	年度變化* (概約)
Electricity	MWh	38,245.93	60,433.23	+58%
電力	兆瓦時			
Natural gas	MWh	20.55	0	-100%
天然氣	兆瓦時			
Gasoline	MWh	5,730.36	2,907.11	-49%
汽油	兆瓦時			
Diesel	MWh	533.39	71.04	-87%
柴油	兆瓦時			
Total	MWh	44,530.23	63,411.38	+42%
合計	兆瓦時			
Energy consumption intensity	MWh per GWh electricity generation volume	11.48	8.88	-23%
能源消耗強度	兆瓦時／ 吉瓦時發電量			

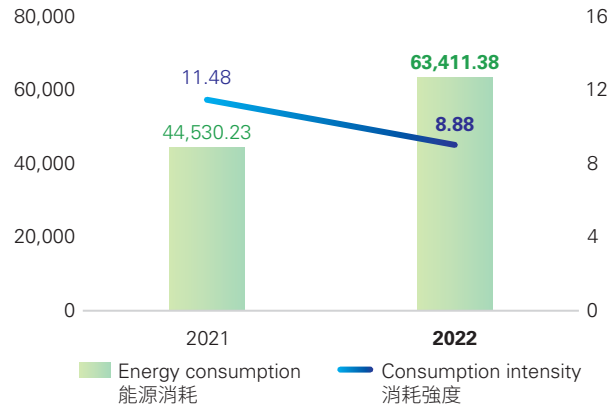
* The increase in electricity consumption during the Year was due to the expansion of the office premises of the Company and some of its branches and the increase in installed capacity under the Company's control. The decrease in gasoline and diesel consumption during the Year was due to a significant reduction in business and operational maintenance trips as a result of the impact of the pandemic.

本年度用電量增加是由於本公司及其部分分公司的辦公地點擴大，以及本公司控制的裝機容量增加。本年度汽油和柴油消耗量減少是由於疫情影響，公務及運行檢修出行大幅減少。

Energy Consumption in FY2022 (MWh)
2022財政年度能源消耗(兆瓦時)



Energy Consumption (MWh) and Consumption Intensity
(MWh per GWh electricity generation volume)
能源消耗(兆瓦時)及消耗強度(兆瓦時/吉瓦時發電量)



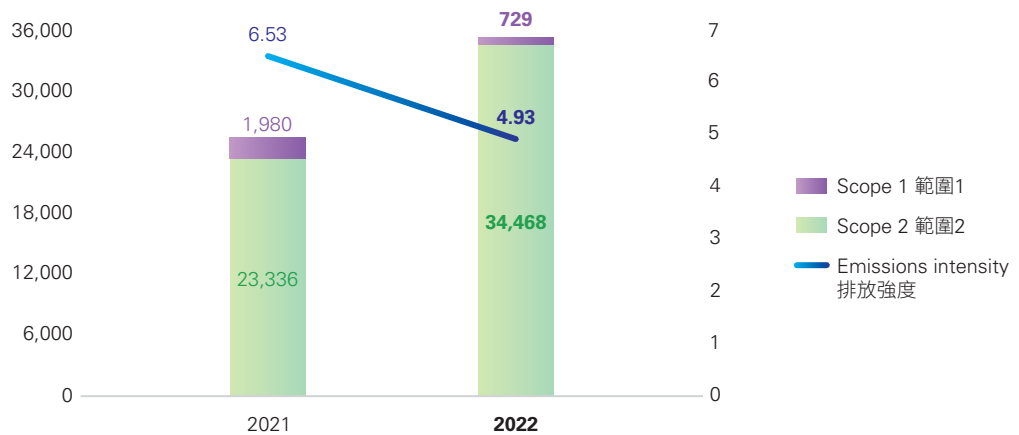
GHG Emissions

The Group is principally engaged in the operation of photovoltaic and wind generation, and the greenhouse gas (“GHG”) emissions mainly came from purchased electricity. During the Year, the Group’s total GHG emissions amounted to approximately 35,197 tons of carbon dioxide equivalent (“tCO₂e”), of which direct emissions (Scope 1) and indirect emissions (Scope 2) accounted for approximately 729 tCO₂e and 34,468 tCO₂e, respectively. Emissions intensity was computed as approximately 4.93 tCO₂e per GWh electricity generated.

溫室氣體排放

本集團以運營光伏及風力發電為主，溫室氣體排放主要源於外購電力。於本年度，本集團的總溫室氣體排放量約為35,197噸二氧化碳當量，其中直接排放（範圍1）及間接排放（範圍2）分別約為729噸二氧化碳當量及34,468噸二氧化碳當量。排放強度約為每吉瓦時發電量排放4.93噸二氧化碳當量。

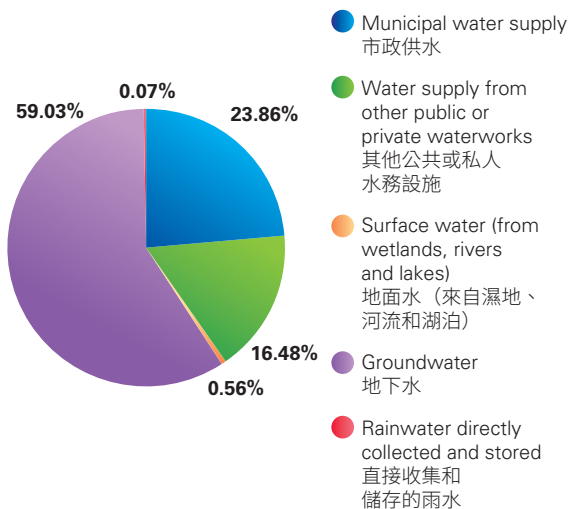
GHG Emissions (tCO₂e) and Emissions Intensity
(tCO₂e per GWh electricity generation volume)
溫室氣體排放(噸二氧化碳當量)及排放強度(噸二氧化碳當量/吉瓦時發電量)



Water Consumption

The Group used less water during the construction of photovoltaic power plants, and usually used village waterwheels to fetch water locally. After operation, the power plants are usually connected to the municipal water pipes according to its geographical location, and the major water consumption consists of water usage for solar panel cleaning and in offices. We arrange the cleaning times and cleaning methods of components in a reasonable manner to save water. During the Year, we consumed a total of approximately 68,132 tons of water and the water consumption intensity was approximately 9.54 tons per GWh electricity generated. The increase in water consumption during the Year was due to the expansion of the office premises of the Company and some of its branches. The Group did not have any problems with access to applicable water sources during the Year.

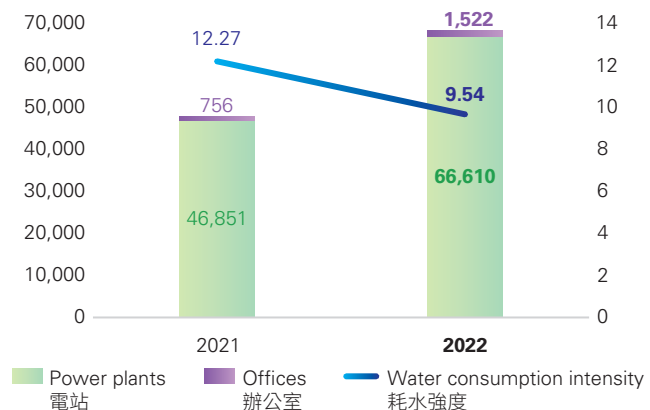
Water Consumption in FY2022 (tons)
2022財政年度水資源消耗 (噸)



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。我們合理安排組件的清洗次數和清洗方式，以此節約用水。於本年度，我們的水資源消耗共約68,132噸，耗水強度約為每吉瓦時發電量消耗9.54噸水資源。本年度用水量增加是由於本公司及其部分分公司的辦公地點擴大。本集團於本年度並無任何獲取適用水源上的問題。

Total Water Consumption (tons) and Water Consumption Intensity (tons per GWh electricity generated)
水資源消耗總量 (噸) 及耗水強度 (噸/吉瓦時發電量)



CONTROL POLLUTION EMISSIONS

In the process of power generation and operation, we strictly abide by national laws and regulations, control pollution emissions, and promptly publicise and implement relevant national policies and requirements. The pollutant emissions generated by the Group mainly involve air pollutant emissions of sulphur oxide, nitrogen oxide and particulate matter, waste water and solid waste.

控制污染排放

在電力生產及運營過程中，我們嚴格遵守國家法律法規，控制污染排放，及時宣貫國家相關政策及要求。本集團所產生的污染排放物主要有包括硫氧化物、氮氧化物及顆粒物在內的大氣污染物、廢水及固體廢棄物。

Air Pollutant Emissions Management

The Group mainly operates photovoltaic and wind power generation – a new type of clean energy that is green and environmentally friendly and does not involve the use of fuel, thus does not emit any hazardous gases, without radiation, noise and pollution. Therefore, our air emissions mainly involve emissions of sulphur oxide, nitrogen oxide and particulate matter generated by fuel consumption of vehicles in the course of our operations. During the Year, the Group's sulphur oxide, nitrogen oxide and particulate matter emissions were approximately 12.7kg, 425.4kg and 54.8kg, respectively. These emissions have no significant impact on our business operation and the environment. In the future, we will continue to work hard to manage the impact of air emissions through emission reduction measures to ensure that the emission target is met.

Wastewater Discharge Management

Reasonable and proper wastewater discharge management is not only beneficial to environmental protection, but also plays a role in promoting the stable development of the city. The wastewater discharged by the Group consists of domestic and production sewage and it will be discharged to municipal sewage treatment pipeline network finally. The domestic sewage is mainly from toilet water used in offices and construction sites, while production sewage mainly consists of water used for cleaning of solar panels. During the Year, we discharged a total of 57,044.6 tons of wastewater. Due to the increase in an aggregate grid-connected installed capacity of the Group and new mergers and acquisitions of more power plants, the amount of wastewater discharged during the Year has increased.

To ensure compliance of the regulations governing domestic sewage, we have set up draining ditches and sedimentation tanks in power plants (toilet sewage has to go through sedimentation in septic tanks before discharging into municipal sewage pipeline). Pouring of food residues, chemicals, waste oil and other contaminants in domestic sewage sewer is strictly prohibited. We have set up buried integrated wastewater treatment facilities in some power plants to handle domestic sewage at construction sites, and the domestic sewage generated is recycled after contact oxidation, sedimentation and disinfection for greening or dust suppression in the power plants without discharging to the outside, thus effectively reducing the pollution of domestic sewage to the environment. For example, at Anhui Huoqiu Huayang Power Plant, we have sewage facilities in place to treat domestic sewage before it is discharged in order to prevent water pollution.

大氣污染物排放管理

本集團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，故不會排放任何有害氣體，無輻射、無噪音、無污染。我們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。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12.7公斤、425.4公斤及54.8公斤。該等排放量對我們的業務營運及環境影響並不重大。未來，我們將繼續致力透過減排措施管理廢氣排放的影響，確保完成排放目標。

廢水排放管理

合理合規的廢水排放管理不僅有利於環境保護，且對城市的穩定發展起到促進作用。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。於本年度，我們排放的廢水總量為57,044.6噸。由於本集團的總併網裝機容量增加和新併購了較多電站，故本年度廢水排放量有所增加。

為確保生活污水的合規排放，我們在發電站設置排水管及沉澱池（廁所污水經過化糞池的沉澱才可進入市政污水管道），並嚴禁食品殘渣、化學物、廢油及其他污染物進入生活污水下水道。針對建築工地的生活污水管理，部分發電站建設地埋式一體化污水處理設備，已產生的生活污水經接觸氧化、沉澱、消毒後進行回收，可用於站區綠化或抑塵，不對外排放，有效降低生活污水對環境的污染。例如在安徽霍邱華陽電站，我們設有排污設施，對生活污水進行處理後再排放，以防止水體污染。



Sewage Discharge Facilities at Anhui Huoqiu Huayang Power Plant
安徽霍邱華陽電站排污設施

Our production sewage consists of only few suspended matters which are insignificant to the environment, we therefore allow it to naturally evaporate without any treatment.

Solid Waste Management

Improper treatment on solid waste not only directly affects the environment quality, but also may cause secondary pollution. The Group attaches great importance to the solid waste management and has built up a systematic approach for waste management. All waste is clearly labelled and stored separately according to different categories. There is also a designated department to check the storage of waste every week to ensure that there is no pollution to the surrounding environment. We regularly update the accounts of hazardous waste and solid waste, and store sulfur hexafluoride gas cylinders, lubricating grease, transformer oil and waste components in a unified manner as required. We have actively promoted the construction of “tapping and saving resources” project by preferentially repairing and recycling solid waste to minimise the discharge of hazardous wastes. For waste that cannot be repaired, reused or recycled and have no use value, we collect them and appoint qualified waste collection experts to handle them. If possible, we would first ask manufacturers to recycle the waste related to power plants as much as possible. We have signed cleaning and transportation contracts with qualified local companies, and arranged special personnel to follow up in accordance with the waste management system. Through various measures mentioned above, the Group manages its waste strictly to ensure that the management of solid waste (including hazardous waste) complies with the relevant national and local regulations and that its waste target is met.

我們的生產污水包含僅少量的懸浮物，對環境影響並不重大，因此其可在不進行任何處理的情況下自然蒸發。

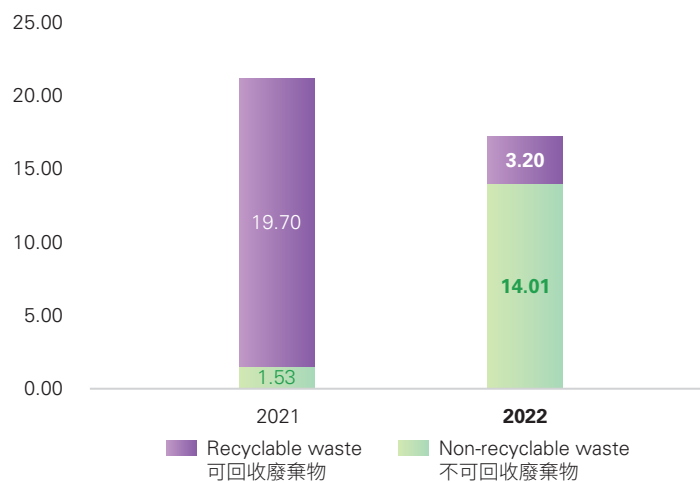
固體廢棄物管理

固體廢棄物若處理不當不僅會直接影響環境質量，還有可能造成二次污染。本集團高度重視對廢棄物的管理，已形成系統化的管理方法。我們將所有廢棄物根據類別作清晰標識及分開儲存，由指定部門每周檢查廢棄物儲存情況以確保未對周邊環境造成污染。我們定期更新有害廢棄物、固體廢棄物的台賬，並按照要求對六氟化硫氣瓶、潤滑油脂、變壓器油、廢舊元件等統一存放。我們積極推進「開源節流」項目建設，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。對於不可修復或重複使用的無利用價值的廢棄物，我們先將其進行收集，再委聘合資格的廢棄物收集專家對其進行處理。若可能，我們會首先要求生產廠家儘量回收電站相關的廢棄物。我們與當地有資質的公司簽訂清運合同，按照廢棄物管理制度，安排專人負責跟進。透過以上多種措施，本集團嚴格管理廢棄物，確保固體廢棄物（含有害廢棄物）管理符合國家及地方法規相關規定，並確保完成廢棄物目標。

During the Year, the Group has generated a total of approximately 0.03 tons of hazardous waste, mainly comprised of waste circuit boards, and generated approximately 17.21 tons of non-hazardous waste, including domestic waste, construction waste and packaging cartons, 3.20 tons of which are recyclable, representing a recycle rate of approximately 18.6%. Due to the epidemic, waste disposal is lagging behind during the Year, and some waste is planned to be disposed of and recycled in 2023. During the Year, on average, approximately 2.41kg of non-hazardous waste and approximately 0.0042kg of hazardous waste were generated per GWh electricity generated respectively. During the Year, we recycled a total of approximately 53.27 tons of scrapped solar panels.

於本年度，本集團共產生約0.03噸的有害廢棄物，以廢線路板為主；另產生約17.21噸無害廢棄物，包括生活廢物、建築廢物、包裝紙箱等，其中3.20噸為可回收廢棄物，回收率達約18.6%。由於疫情原因，本年度的廢棄物處置滯後，部分廢棄物計劃於2023年處置回收。於本年度，平均每吉瓦時發電量分別產生約2.41公斤無害廢棄物及約0.0042公斤有害廢棄物。我們於本年度回收的報廢太陽能電池板共約53.27噸。

Non-hazardous Waste Generated (tons)
無害廢棄物產生量 (噸)



CARE FOR THE ECOLOGICAL ENVIRONMENT

The Group attaches great importance to the protection of the ecological environment where the project is located, and insists on developing while protecting and protecting while developing. We formulated the Measures for Environmental Protection Management and the Guidelines of Environmental Protection Technical Supervision, and actively took environmental protection measures in the design, construction and operation of each project to reduce the impact on the ecological environment, promoting the harmonious development of human and nature with practical actions.

愛護生態環境

本集團高度重視項目所在地的生態環境保護工作，堅持在保護中開發、在開發中保護。我們制定《環境保護管理辦法》和《環境保護技術監督導則》，並在每個項目的設計、建設和運營過程中積極採取環境保護措施，以減少對生態環境的影響，以實際行動推動人與自然和諧發展。

The Group strictly abides by various rules and regulations related to biodiversity, clarifies the requirements for biodiversity protection in the process of project development, construction, operation and maintenance, fully identifies and analyses the biodiversity risks in wind farms and its surrounding habitats, especially in areas rich in biological resources, focuses on the impact of bird strikes, blocking of wildlife migration channels, habitat loss and environmental pollution, and takes various measures to strictly implement biodiversity protection, so as to avoid or reduce relevant impacts.

During the Year, we carried out environmental impact assessment in the photovoltaic area of Mashui Power Plant in Yangjiang City, Guangdong Province, and carried out assessments on water, air, electromagnetic radiation, noise, etc., with an investment of RMB265,000. For the Huaibei and Huainan Project in Anhui Province, we signed an agreement with a labour service unit to regularly clean up the debris in the water; and for the new project in Huoqiu County, Anhui Province, we added accident oil pool to prevent water pollution, with an investment of RMB30,000. In addition, the Group introduced environmental protection knowledge, environmental protection laws, environmental protection systems, pollution control and other knowledge through environmental protection trainings, so as to enhance the environmental protection awareness of the operation and maintenance personnel in the power plants, and to do a good job in the environmental protection work of power plants.

本集團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，採取多種措施，嚴格落實生物多樣性保護，避免或減少相關影響。

於本年度，我們在廣東陽江馬水電站光伏區開展了環境影響評價，對水、氣、電磁輻射、雜訊等開展了評價，投入資金人民幣26.5萬元。安徽兩淮項目針對水域雜物與勞務單位簽訂協定定期進行清理，安徽霍邱新建項目增設事故油池防止水體污染，投入資金人民幣3萬元。此外，本集團通過環保培訓的開展，介紹環保常識、環保法律、環保制度、污染治理等知識，提升電站運維人員的環保意識，做好電站環保工作。



Environmental Protection Training at the Northwest Branch
西北分公司環保培訓

Performing Greening Obligations and Carrying out Tree-Planting Activities

In order to effectively strengthen the construction of ecological environment protection and help realise the “double carbon” goals, Qinghai Gonghe Power Plant, the Northwest Branch of the Group, organised tree planting and greening activities for all employees at the power plant during the Year, planting a total of 380 trees, which interpreted the beautiful concept of ecological protection and harmonious coexistence with actions. This greening activity not only improved everyone’s awareness of participating in the daily maintenance and construction of the power plant, but also enhanced the awareness of protecting the environment and building a beautiful homeland, fully demonstrated the specific embodiment of the Northwest Branch’s implementation of the green development concept, and made a solid step for the joint participation in the “double carbon” action.

踐行綠化義務、開展植樹活動

為切實加強生態環境保護建設，助力「雙碳」目標實現，本集團西北分公司青海共和電站於本年度向該電站的全體僱員組織植樹綠化活動，共計植樹380棵，用行動詮釋了保護生態、和諧共存的美好理念。此次綠化活動不僅提高了大家參與電站日常維護建設的認識，也增強了保護環境、建設美好家園的意識，充分彰顯了西北分公司踐行綠色發展理念的具體體現，為共同參與到「雙碳」行動中邁出了堅實的步伐。



Adhere to
the **People**-**Oriented**
Concept

堅持

以人
為本



DIVERSITY OF TALENT TEAM

Employees are our greatest asset. We always adhere to the people-oriented concept and respect the basic rights and interests of every employee.

As of the end of December 2022, the Group totally had 1,011 full-time employees (no part-time or temporary employee), of which 970 were based in Mainland China, 26 were based in Hong Kong and 15 were based in overseas. There were 806 male employees (approximately 79.7%) and 205 female employees (approximately 20.3%). There were approximately 82.5% of our employees aged from 31 to 40 and below 30. There were 99 employees of ethnic minorities, accounting for approximately 9.8% of the total number of employees.

Over 77.6% of the Group's employees hold a bachelor's degree or higher, of which approximately 60.6% are bachelor's degree, approximately 16.7% are master's degree and there were 3 employees with a doctorate degree. Middle and senior management personnel accounted for approximately 9.3% of the total number of our employees.

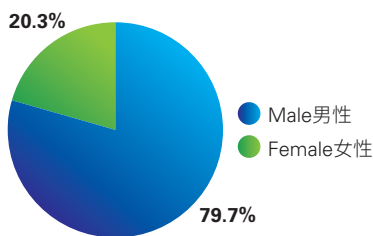
多元人才隊伍

僱員是我們最大的資產。我們始終秉承以人為本的理念，尊重每一位僱員的基本權益。

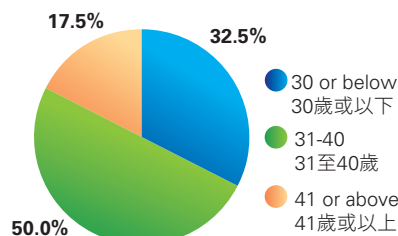
截至2022年12月底，本集團共有1,011名全職僱員（無兼職或臨時僱員），其中中國內地僱員共970人，香港僱員共26人，海外僱員共15人，男女僱員分別有806人（約佔79.7%）和205人（約佔20.3%）。年齡在31-40歲之間及30歲以下的僱員總比約為82.5%。少數民族人數為99人，佔僱員總數約9.8%。

本集團逾77.6%的僱員持有學士或以上學位，其中約60.6%持有學士學位，約16.7%持有碩士學位，持有博士學位的人數為3人。中高級管理人員約佔整體僱員人數9.3%。

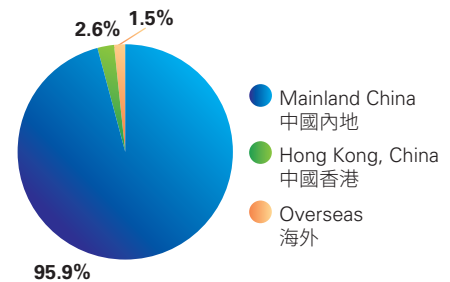
Employee Gender Profile
僱員性別分佈



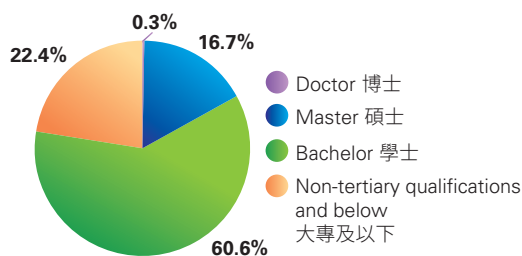
Employee Age Profile
僱員年齡分佈



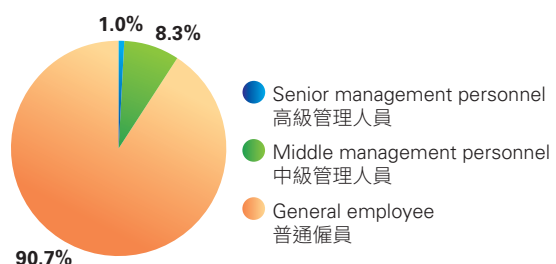
Employee Region Profile
僱員地區分佈



Employee Education Background Profile
僱員教育背景分佈



Employee Category Profile
僱員類型分佈



Employment Policy

The Group places emphasis on talent building and recruits suitable talents based on the principles of openness, equality, competition and merit, deploys a reasonable structure of personnel and positions according to the characteristics of talents and the personnel required for the positions. Potential candidates with different cultural backgrounds and different needs are recruited by the Group through internal and external channels, including campus presentation, internet, newspaper, internal recommendations, on-site recruitment, headhunting and so on. We have been strengthening the construction of a talent pool of diversity and absorbing compound talents in order to establish a rational deployment mechanism for talents, realise the best use of talents and give full play to individual talents.

The Group regulates the recruitment and hiring management process through standardised and organised employment management measures. We protect the rights and interests of employees according to internal management systems, such as the Measures for Labour Contract Management, the Measures for Recruitment and Employment Management and Employee Handbook. During the hiring process, we control the risks during the recruitment and hiring management process. For instance, we determine the recruitment plan upon the review by President of the Company and the Board, file and record the registration forms of applicants and employment approval forms properly, so that the management department can subsequently control and monitor the hiring process.

In accordance with the Trade Union Law of the PRC, the Labour Law of the PRC, the Constitution of the All-China Federation of Trade Unions and other documents, the Group has formulated the Regulations of Labour Union Work Management. We have established a trade union for the purposes of protecting the legal rights and interests of employees, helping employees enter into labour contracts with and negotiate equally on issues such as labour remuneration, working hours and labour quota with the Group, as well as resolve the labour disputes.

僱傭政策

本集團重視人才建設，以公開、平等、競爭、擇優的原則招聘合適的人才，並根據人才特質與崗位所需人員，配置合理的人崗結構。透過內部和外部渠道，包括校園宣講、網絡、報刊、內部推薦、現場招聘及獵頭等，本集團委聘具有不同文化背景及不同需要的潛在候選人。我們一直加強建設多元人才儲備庫，吸納複合型人才，以建立人才合理配置機制，實現人盡其用，充分發揮個人才能。

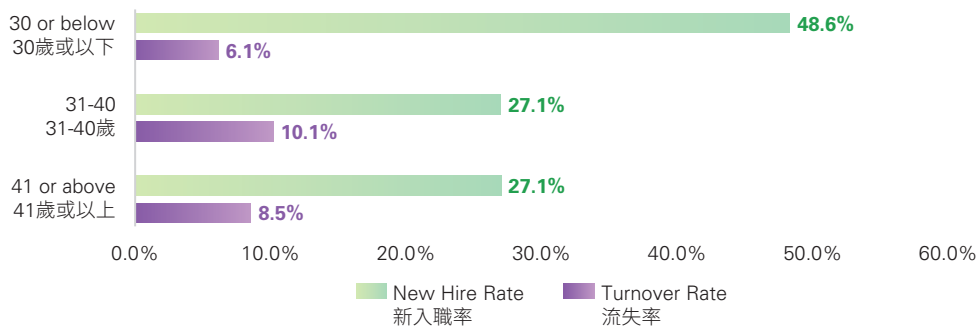
本集團透過標準化和條理化的僱傭管理辦法規範招聘與錄用管理過程。我們根據《勞動合同管理辦法》、《招聘和錄用管理辦法》及《員工手冊》等內部管理制度，保障僱員的權益。在招聘過程中，我們開展對於招聘和錄用管理過程的風險控制，經本公司總裁和董事會審核後確定招聘計劃，做好應聘登記表和面試錄用審批表的存檔記錄工作，以便後期歸口管理部門管控和監測僱傭過程。

本集團依照《中華人民共和國工會法》、《中華人民共和國勞動法》及《中國工會章程》等文件，已制定《工會工作管理規定》。我們組建工會，維護僱員的合法權益，幫助僱員與本集團簽訂勞動合同，就勞動報酬、工作時間及勞動定額等事項與本集團平等協商，調解勞動爭議。

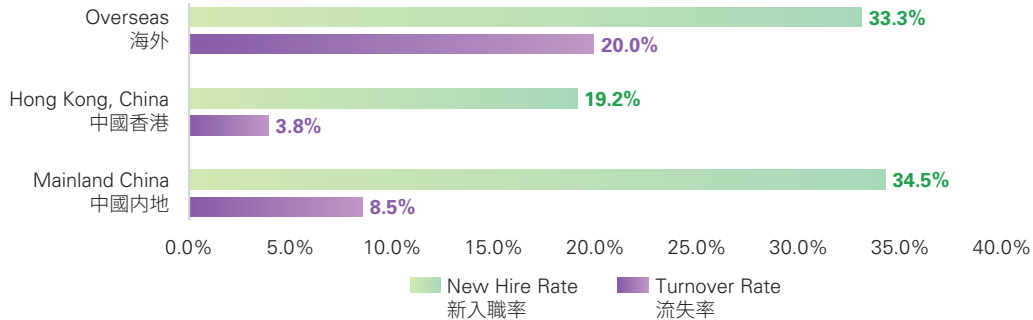
During the Year, the Group had a total of 345 newly hired employees, 272 (approximately 78.8%) of which were male and 73 (approximately 21.2%) of which were female. The overall turnover rate of the Group was approximately 8.5% (being 84 employees), of which approximately 97.7% left voluntarily.

於本年度，本集團新入職僱員共345人，新入職男女僱員分別有272人（約佔78.8%）和73人（約佔21.2%）。本集團整體僱員流失率約為8.5%（即84人），其中有約97.7%為自願離職。

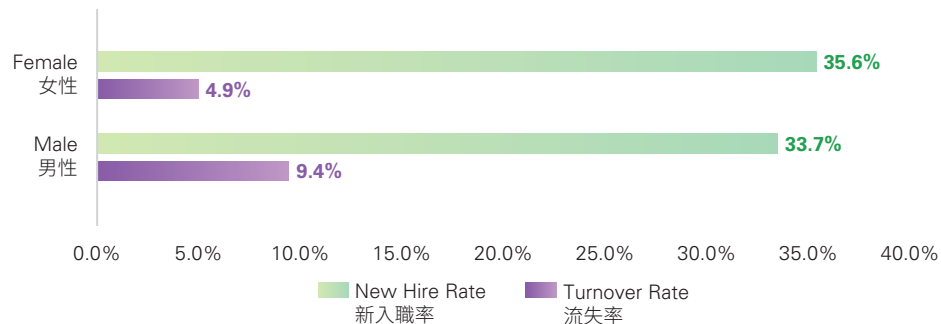
Turnover and New Hire Rates by Age 按年齡劃分的僱員流失率及新入職率



Turnover and New Hire Rates by Geographical Locations 按地區劃分的僱員流失率及新入職率



Turnover and New Hire Rates by Gender 按性別劃分的僱員流失率及新入職率



Eliminate Child Labour and Forced Labour

The Group signs labour contracts with new hired employees in accordance with the relevant laws, specifying their salaries, positions, contract period and renewal terms of labour contract, based on the principles of mutual agreement, equality and voluntariness, and forced labour is prohibited. We will impose punishments when there are any violations. The Group strictly eliminates illegal employment of child labour. During the recruitment process, we strictly examine the age of candidates. In case of misuse of child labour, the Company will immediately terminate its labour relationship and provide a certain amount of study and living expenses to help them continue their education. During the Year, there was no forced labour or child labour in the Group.

During the Year, the Group was not aware of any violation of relevant laws and regulations³ that have a significant impact on the Group relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunities, diversity, anti-discrimination, other benefits and welfare, as well as preventing child labour or forced labour.

PROMOTE TALENT DEVELOPMENT

The development of talents drives the sustainable development of the Group. To ensure the employee's growth in term of occupational capability, the Group has, according to the Measures for Talent Evaluation & Recommendation and Appointment Management, opened up channels for employees to improve their self-worth, and provided a sound training system that covers the diverse growth needs of employees to stimulate their career potential. Through the online digital learning platform, employees can improve their personal professional skills and enhance their professional knowledge accumulation to meet the learning needs of multiple scenarios and facilitate employees to dynamically manage their learning progress.

杜絕童工與強制勞工

本集團依法與新入職僱員簽訂勞動合同，明確僱員薪酬、職位、勞動合同期限及勞動合同續簽條款，基於雙方協商一致、平等自願的原則完成合同的簽訂，禁止發生強制勞工的情況。如發生此類情況，我們將予以懲處。本集團嚴格杜絕僱傭童工的非法用工現象。在招聘過程中，我們對於應聘者的年齡進行嚴格審驗，如發現誤用童工的情況，我們將立即終止與其的勞動關係，並提供學習費用和生活費用以幫助其繼續就學。於本年度，本集團並無發生任何強制勞工與僱傭童工的情況。

於本年度，本集團並不知悉任何違反有關薪酬及解僱、招聘及晉升、工作時數、假期、平等機會、多元化、反歧視、其他待遇及福利以及防止童工或強制勞工且對本集團有重大影響的相關法律及規例³的情況。

促進人才發展

人才的發展驅動本集團的可持續發展。為確保僱員的職業能力的成長，本集團根據《人才評價及推薦任用管理辦法》，打通僱員自我價值提升渠道，提供健全的培訓體系，覆蓋僱員多樣化的成長需求，以激發職業潛力。僱員通過在線數字化學習平台，提升個人的專業技能和增加專業知識儲備，以滿足多元場景的學習需求，便於僱員動態管理學習進度。

³ For laws and regulations related to employment and labour, please refer to the section of "Appendix I: Compliance with List of Laws and Regulations on Environmental, Social and Governance".

僱傭及勞工相關法律及規例請參見「附錄一：遵守有關環境、社會及管治的法律及規例清單」章節。

Talent Cultivation

The Measures for Talent Evaluation & Recommendation and Appointment Management of the Group regulates the process of internal talent evaluation and recommended appointment, improves talent development channels, and provides institutional guarantees for employees to give full play to individual talents. The Group also selects and appoints market-oriented leaders through internal direct recommendation and appointment. After determining the training targets, we would put forward requirements for the proposed positions, affirm the achievements, clarify the deficiencies of the training targets, and set a clear goal for them.

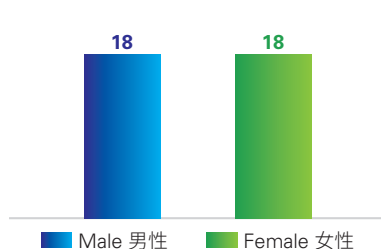
The Group utilises an integrated talent management platform to create a learning platform named “Learning Cloud”. Employees receive whole-process management training through this platform, covering four aspects, being training system construction, training demand planning, training project implementation, and training effects. We had launched more than 20 practical courses on this platform, including training on official document, training on file management system and training on safety production, etc. In order to combine training with pleasure, we had built a game section (i.e. “Bo Xue Planet”) on the platform to gamify the learning contents and make it more interesting. In addition, in order to meet the personalised analysis needs of enterprises, we combined the advantages of “Cloud” to generate analysis reports through multi-dimensional data statistics. According to statistics, there were a total of 17,914 person-times of training during the Year, and the training cost per person was RMB1,718. The training coverage rate of male and female employees both reached 100%, with the average training hours per person of 18 hours. The training coverage rate of general employee reached 100%, with the average training hours per person of 19 hours. The training coverage rates of middle and senior management personnel both reached 100%, with the average training hours per capita of 14 and 20 hours, respectively.

人才培養

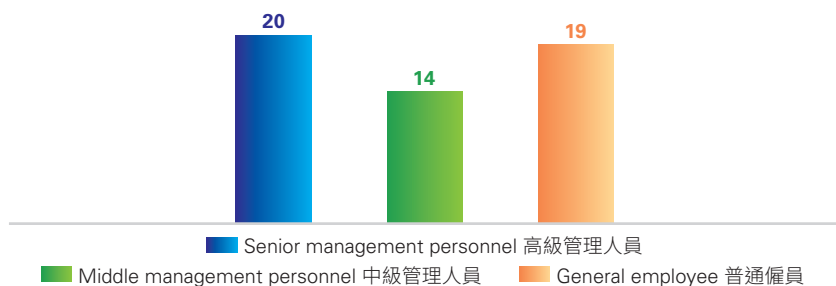
本集團的《人才評價及推薦任用管理辦法》規範內部人才評價及推薦任用流程，完善人才發展通道，為實現人盡其能提供制度保障。本集團亦採用內部直接推薦任用的方式選任市場化領導人員，確定培養對象後，我們對擬任崗位提出要求，肯定培養對象的成績，指出不足，明確努力方向。

本集團利用一體化人才管理平台，打造「學習雲」學習平台。僱員通過該平台接受全過程管理培訓，覆蓋培訓體系搭建、培訓需求計劃、培訓項目實施、培訓效果等四方面。我們在該平台上線公文培訓、檔案管理系統培訓及安全生產培訓等20多項實用課程。為寓教於樂，我們在平台搭建「博學星球」的遊戲板塊，將學習內容遊戲化，增添學習趣味性。此外，為滿足企業的個性化分析需求，我們結合「雲」優勢，通過多維度數據統計，生成分析報告。經統計，於本年度，本集團的培訓總人次為17,914人次，人均培訓開支為人民幣1,718元，男性及女性僱員的培訓覆蓋率皆為100%，人均培訓時數皆為18小時。普通僱員的培訓率達100%，人均培訓時數為19小時；而中級及高級管理人員的培訓覆蓋率皆為100%，人均培訓時數分別為14小時和20小時。

Training Hours Per Capita by Gender
按性別劃分人均受訓時數



Training Hours Per Capita by Employee Category
按僱員類別劃分人均受訓時數



PROTECT EMPLOYEE RIGHTS

Remuneration and Welfare

The Group has continuously improved the construction of its internal remuneration and welfare system with institutional documents such as the Measures for Salary & Job Array Management and Measures for the Special Rewards Management. Based on the principles of value matching and distribution according to work, we match employee salaries and position values, reasonably manage salaries, and fully mobilise the enthusiasm of employees.

The Group's remuneration is composed of job remuneration, performance, allowances, benefits, etc. A diversified remuneration system is designed in combination with position ranks and classifications to meet the differentiated needs of different position ranks and hired talents. We also adjust salaries dynamically through a benchmark adjustment factor based on the external environment, such as the national economic environment and price levels. In addition, we set up special rewards to motivate the teams and employees that have made outstanding contributions to the Company's business development and management, so as to enhance employees' sense of self-efficacy.

In terms of welfare, the Group provides employees with comprehensive welfare programs in accordance with the Measures for Employee Benefits Management. The welfare programs include statutory benefits and supplementary benefits, aiming to protect the legitimate rights and interests of employees, strengthen corporate cohesion, improve employees' sense of responsibility, and enrich employees' cultural life. We set up ten types of holidays, such as birthday leave and examination leave, to provide convenience for employees' diversified special arrangements.

保障僱員權益

薪酬與福利

本集團通過《薪酬及職位序列管理辦法》和《專項獎勵管理辦法》等制度性文件，不斷完善內部薪酬與福利體系及制度的建設。我們基於價值匹配、按勞分配的原則，匹配僱員薪酬和職位價值，合理配置薪酬，充分調動僱員的積極性。

本集團的薪酬由崗位薪酬、績效、津補貼、福利等構成，並且結合職級和分類，設計多元化的薪酬體系，滿足不同崗級和聘用人才的差異化需要。我們亦根據國家經濟環境、物價水平等外部環境情況，通過薪酬體系基準調節係數，動態調整薪資。此外，我們設置專項獎勵，激勵對公司經營發展和管理做出突出貢獻的團隊與僱員，提升僱員的自我效能感。

在福利方面，本集團根據《員工福利管理辦法》，為僱員提供全面的福利項目。福利項目包含法定福利和補充福利，以保障僱員的合法權益，加強企業凝聚力，提高僱員的信任感，豐富僱員的文化生活。我們設置生日假、考試假等十種假期類型，為僱員的多元化的特殊安排提供便利。



Statutory Benefits 法定福利

Setting up in compliance with laws and regulations

遵循法律法規必須設置

- Social insurance (including endowment insurance, medical insurance, unemployment insurance, work-related injury insurance and maternity insurance, etc.)
社會保險 (包括養老保險、醫療保險、失業保險、工傷保險和生育保險等)
- Housing provident fund
住房公積金
- Statutory holidays (including statutory holidays, sabbatical leave, annual leave, marital leave, maternity leave, etc.)
法定假期 (包括含法定節假日、公休假、年休假、婚假、產假等)



Supplementary Benefits 補充福利

Resolving common needs of employees

為僱員解決共同需要

- Tea break, working meal
茶歇、工作餐
- Health check
健康體檢
- Allowance for employee activities (including allowance for education, sports, publicity and other activities and employee collective benefits)
僱員活動類福利 (包括教育、文體、宣傳等活動福利及僱員集体福利)

Employee Culture Cultivation

In order to enhance the team cohesion and improve employees' work experience in the Group, the Group had cultivated its corporate culture from four aspects, which are ideological construction, self-efficacy construction, care for females, as well as warmth and caring, so as to create a warm and progressive working atmosphere for employees. In terms of ideological construction, in order to implement the spirit of the Communist Party of China Central Committee, we continuously improved the ideological level of employees and built a solid ideological foundation for employees to work together. In terms of self-efficacy construction, we established an employee honour system to enhance the atmosphere of striving to be the exemplary, and motivated employees to continue to forge ahead in leverage of the appraisal of advanced and excellent workers. Meanwhile, we set up models of BJEI to promote the impact of models within the Group from a point to an area.

僱員文化建設

為增強團隊凝聚力及提升僱員在本集團的工作體驗，本集團從思想建設、自我效能建設、關愛女性、溫暖關懷等四方面建設企業文化，為僱員打造溫暖向上的工作氛圍。在思想建設方面，我們為貫徹落實黨中央精神，不斷提高僱員的思想水平，築牢僱員團結奮鬥的思想基礎。在自我效能建設方面，我們搭建僱員榮譽體系，增強爭當先進的氛圍。以評先評優為抓手激勵僱員不斷進取，同時書寫京能國際榜樣故事，以點帶面，在本集團範圍內輻射榜樣力量。

In terms of care for females, we carried out art activities to provide opportunities for female employees to relax. In terms of warmth and caring, we provided friendly services to employees in hot weather, anti-epidemic, hospitalization, festivals and other scenarios, and offered on-the-spot assistance and condolence.

In addition, in order to enrich the employees' recreational and cultural life and strengthen their physical fitness, the Group formulated the Measures for the Labor Union Cultural and Sports Association Management and established a cultural and sports association. There are eight sub-associations under the association, including badminton association and basketball association, with a total of 400 members. During the Year, we conducted a total of 36 cultural and sports activities, and successfully promoted the relevant works, such as member recruit and formulation of activity plans, as scheduled.

關愛女性方面，我們開展特色的藝術類活動，為女僱員提供休閒放鬆的機會。在溫暖關懷方面，我們在高溫天氣、抗疫、住院、節日等場景，為僱員送上溫暖服務，實地開展幫扶慰問工作。

此外，為豐富僱員的業餘文化生活，加強僱員的身體素質，本集團制定《工會文體協會管理辦法》，成立文體協會。協會下設羽毛球協會、籃球協會等八個協會，會員共有400人。於本年度，我們共開展36次文藝活動和體育活動，順利按照時間節點推進會員入會、活動計劃制定等工作。

“Table of Cultural Activities”

「文化活動一覽表」



Ideological Construction 思想建設

- Publicity and Education of “Four Histories” 「四史」宣傳教育
- Calligraphy, Painting and Photography Exhibition of Employees 僱員書畫攝影展
- “Nationwide Reading” Campaign 「全民閱讀」活動
- Themed Cloud Group Class 主題雲團課



Self-efficacy Construction 自我效能建設

- Selection of Advanced Representatives 評選先進代表
- Advanced Deeds Publicity of “Beijing Energy Models” 「京能人物」榜樣故事宣傳
- Production of Mini-videos of “BJEI News” 製作「京能國際說」微視頻



Care for Females 關愛女性

- Selection of “Craftswoman” and “March 8th Flag Bearer” 評選「女工匠」、「三八紅旗手」
- Tea Ceremony Learning Activities 茶道學習活動
- DIY Activities of Silver Accessories 銀飾DIY活動
- Tufting Artistic Stress Relief Activities 簇絨藝術減壓活動



Warmth and Caring 溫暖關懷

- Purchase of Medical Supplies 購買醫用物品
- Birthday Cake Coupons 生日蛋糕券
- Holiday Condolences from Labour Union 工會節日慰問
- “Home for Staff” 「職工小家」

“Key Employee Activities”

「重點僱員活動」



Women's Day Activity of "Building up a Glamorous Career and Striving for a New Journey"
「巾幗建功展芳華奮楫啟航新征程」三八國際婦女節活動



Theme Event of "League Members & Reunion"
for Mid-Autumn Festival
「團員團圓」中秋主題活動



Visits to Front-line Employees by Sending
"Cool Welfares"
慰問一線僱員，為僱員送「清涼」



Employee Symposium
僱員座談會



Study the Party's 20th National Congress Report
Counselling Reader
共讀黨的二十大報告輔導讀本



The Youth Speech Contest of Welcoming
the 20th National Congress
喜迎二十大青年演講比賽

Employee Complaint

In order to cultivate employees' good working habits and strengthen employees' self-correction ability, the Group, according to the Measures for Staff Workplace Discipline Management, follows the principle of reason-first and combining human affairs with reason in the management process, and respects and understands employees' feelings in the process of dealing with problems. Employees have the right to state and defend regarding the solutions on problems. Afterwards, the leading group for special work of workplace discipline management may hold a special meeting for reconsideration, and the audit and supervision department is responsible for dealing with employee's complaints and reports, to safeguard employees' appeal rights.

僱員申訴

為培養僱員的良好的工作習慣，加強僱員的自我修正能力，本集團根據《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。後職場紀律管理專項工作領導小組召開專題會議進行復議，並且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。

ENSURE OCCUPATIONAL HEALTH AND SAFETY

The Group is committed to protecting the health and safety of employees, and creating a sustainable and healthy working environment for employees. In order to strengthen the management of occupational disease hazard prevention and control, we adhered to the guideline of "Prevention First with Treatment Combined" in accordance with the Regulations of Prevention and Control of Occupational Diseases Management and Safe Production and Occupational-Disease-Prevention Responsibility System, and implemented classified management and comprehensive governance. Based on the principle of "Prevention First, Standardised Management, and Each Performs Its Own Duties", we distributed the occupational disease prevention and control responsibilities to the management personnel at all levels to fully cover the management at all levels. We implemented comprehensive and full-process measures for the occupational disease prevention and control, including identification of occupational disease hazard factors, warning for hazards, publicity of occupational disease prevention, prevention training, labour protection facilities and supplies, daily monitoring and evaluation management of hazard factors, occupational health examination, file management, etc., to provide employees with a full range of security services.

In accordance with the requirements as set out in the Notice on Strengthening the Occupational Health Management of Employees of the Group, we also carried out inspections in three aspects, including the occupational health management of employees, the occupational health admission qualifications of reviewers, and the monitoring of occupational health and safety, and supervised all units to establish occupational health records to keep the records of employees' health properly, so as to facilitate real-time monitoring of employees' health conditions.

Safety Monitoring Management System

In order to strengthen the construction of the safety system, the Group compiled 24 safety and environmental protection management policies, 15 production management policies and 7 technical standards in accordance with the new version of the Production Safety Law of the PRC and the Group's management system to standardise the production process.

確保職業健康與安全

本集團致力於保障僱員的生命健康和 safety，為僱員打造可持續發展的良性工作環境。為加強對職業病危害防治工作的管理，我們根據《職業病防治管理規定》和《全員安全生產與職業病危害防治責任制》，堅持「預防為主、防治結合」的方針，實行分類管理、綜合治理。我們以「預防為主，規範管理，各司其職」的原則，落實各層級管理人員的職業病防治職責，以全面覆蓋各級管理範圍。我們實施完善的職業病防治全流程措施，從職業病危害因素辨識、危害警示、職業病防治宣傳、防治培訓、勞動防護設施及用品、危害因素日常監測及評價管理、職業健康檢查、檔案管理等方面落實舉措，為僱員提供全方位的保障服務。

我們亦按照本集團《關於加強從業人員職業健康管理的通知》的要求，針對從業人員職業健康管理情況、審核人員職業健康入場資質情況、職業健康安全監護情況等三方面開展檢查工作，監督各單位建立職業健康檔案，以做好僱員的健康存檔工作，便於實時監管僱員的健康狀況。

安全監控管理系統

為加強安全制度建設，本集團對照新版《中華人民共和國安全生產法》和本集團的管理制度，編修24項安全環保類管理制度、15項生產管理制度及7項技術標準，以規範生產過程。

The Group established and improved the safety production management system, clarified the composition and responsibilities of the safety production guarantee and supervision system, and guided our branches and subsidiaries to carry out the construction of a safety production system and a three-level safety supervision network. In addition, we strengthened safety risk management and control, comprehensively carried out the identification, evaluation and control of safety risk to realise classified and hierarchical management and control. For high-risk operations, we formulated a three-level list of upgrade monitoring items for platform companies, branches and subsidiaries, and power plants, and established an experts' pool of safety production to perform upgrade monitoring duties, so as to ensure the controllability of safety risks. In addition, we carried out emergency drills based on seasonal characteristics to improve our ability to respond to seasonal safety accidents.

During the Year, the proportion of employees undergoing health examination of the Group was 100%, and there were no personal injury or death accidents, equipment liability accidents, or occupational disease hazard accidents. We have achieved zero occupational incidents for eight consecutive years. During the Year, the Group was not aware of any violation of relevant laws and regulations⁴ that have a significant impact on the Group relating to the provision of a safe working environment and the protection of employees from occupational hazards.

本集團建立健全安全生產管理體系，明確安全生產保證和監督體系的構成和職責，指導各分、子公司開展安全生產體系和三級安全監督網絡建設。同時，我們強化安全風險管控，全面開展安全風險辨識、評價及控制工作，實現分類分級管控。針對高風險作業，我們制定平台公司、分、子公司及電站的三級升級監護項目清單，並建立安全生產專家庫，履行升級監護職責，以確保安全風險的可控化。此外，我們結合季節特點開展應急演練工作，針對性提升對於季節性安全事故的應對能力。

於本年度，本集團接受健康檢查僱員的比例為100%，且全年未發生人身傷亡事故、設備責任事故及職業病危害事故等安全事故。我們已實現連續八年零職業事故。於本年度，本集團並不知悉任何違反有關提供安全工作環境及保障僱員避免職業性危害且對本集團有重大影響的相關法律及規例⁴的情況。

	2020	2021	2022
Number of work-related injuries (employees) 因工受傷人數 (人)	0	0	0
Lost days due to work injuries (days) 因工傷損失工作日數 (天)	0	0	0
Number of work-related fatalities 因工亡故的人數	0	0	0
Proportion of employees receiving health examination 接收健康檢查僱員比例	100%	100%	100%

⁴ For laws and regulations related to health and safety, please refer to the section of "Appendix I: Compliance with List of Laws and Regulations on Environmental, Social and Governance".
健康與安全相關法律及規例請參見「附錄一：遵守有關環境、社會及管治的法律及規例清單」章節。

Safety Hazard Investigation

The Group is committed to realising self-identification and self-control of corporate risks, self-inspection and self-governance of safety hazards, practical enforcement of national safety regulations, and establishment of a long-term mechanism for risk control and potential hazard investigation and management. We continually improved the system of safety hazard investigation and governance as well as safety risk management and control, built a system of safety hazard investigation that combines investigation and special investigation, equally emphasizes key investigation of platform companies and self-investigations of power plants, and deeply carried out special investigations such as routine investigations, seasonal investigations and general safety inspections, and implemented the work system of “Bilateral Record (雙掛賬)” for safety hazards. We had made investigations on more than 3,000 issues in total, all of which had been rectified as required, with a rectification completion rate of 100%. During the safety inspection of the Company, a total of 418 hidden problems were found, all of which had been rectified as required and the rectification completion rate was 100%.

Special Rectification

2022 is the third year for the Group to implement the three-year action plan for special rectification of safety production and we had achieved remarkable results in the rectification work. Combining with the National Three-Year Action Plan for Special Rectification of Safety Production, we strived to prevent the occurrence of accidents, carried out special rectification, and formulated the three-year action plan for special rectification of safety production, 3 special implementation plans and 7 special rectification implementation plans.

The Group improved the safety production responsibility system for all employees, clarified the safety production responsibilities of each position, signed the Safe Production Target Responsibility and the Employee Safety Commitment with employees at all levels, and quantified the safety production target into specific work indicators that can be evaluated and assessed. In addition, we continually created a “high-handed” posture for on-site safety management, and carried out activities such as the compliance in standardised teams, standardised sites, and standardised positions to enhance the management and control of high-risk operation sites.

隱患排查

本集團致力於實現企業風險的自辨自控，隱患自查自治，切實執行國家安全法規，建立風險控制和隱患排查治理長效機制。我們持續完善隱患排查治理與安全風險管控體系，構建排查與專項排查相結合、平台公司重點巡查與電站自主排查並重的隱患排查體系，深入開展常規性排查、季節性排查及安全大檢查等專項排查工作，實施安全隱患「雙掛賬」工作制度。我們共排查3,000多項問題，均已按要求整改，整改完成率為100%。本公司安全巡查中，排查隱患問題共計418項，均已按要求整改，整改完成率為100%。

專項整治

2022年為本集團安全生產專項整治三年工作方案的第三年，整治工作開展卓有成效。結合《全國安全生產專項整治三年行動計劃》，我們力圖杜絕事故的發生，開展專題整治工作，制定安全生產專項整治三年行動實施方案、3個專題實施方案及7個專項整治實施方案。

本集團健全全員安全生產責任制，明確各崗位安全生產職責，層層簽訂安全生產目標責任書和僱員安全承諾書，將安全生產目標量化為可評價、可考核的具體工作指標。此外，我們持續營造現場安全管理「高壓」態勢，通過開展標準化班組、標準化現場及標準化崗位達標等活動，以提高高風險作業現場管控水平。

In terms of the rectification of fire protection, hazardous chemicals, and hazardous waste, we strengthened the management of hazardous chemicals and hazardous waste, standardised the use and management of supplies, and regularly carried out emergency drills to improve employees' emergency response capabilities.

Safety Training

In order to strengthen employees' self-protection capabilities on safety issues, the Group improved employees' safety production knowledge system and honed their safety protection skills through various safety training programs such as knowledge competitions, emergency drills and training courses. During the Year, a total of 3,081 person-times received the training of occupational safety and health from the Group, with a total of 9,243 training hours, and 100% of our employees received safety training during the Year. Taking advantage of the convenience and immediacy of the internet, the Group has built an online Training Management System that covers the training contents in all security business segments, and continually updated the training courseware and teaching materials. Through this system, a total of 327 person-times participated in the online safety production examination.

We have built a "Datong Training Base" and purchased professional teaching aids for practice to improve employees' ability to combine theory with practice. We also strengthened cyber security training and education, organised the training for certification of cyber security management, and organised a series of activities for BJEI Cyber Security Publicity Week. In addition, in order to popularize the Production Safety Law, we held 209 special lectures and training sessions for the Production Safety Law, and a total of 1,348 person-times participated in such activities.

在消防整治、危險化學整治、危險廢棄物整治方面，我們加強危險化學品和有害廢棄物的管理工作，規範用品的使用管理，定期開展應急演練，以提高僱員的應急處理能力。

安全培訓

為加強僱員自我安全保護能力，本集團通過知識競賽、應急演練及培訓班等多形式的安全培訓項目，完善僱員的安全生產知識體系，鍛煉其安全防護技能。本集團於本年度共有3,081人次進行職業安全與健康教育培訓，僱員安全培訓覆蓋率達100%，總培訓時數達9,243小時。本集團利用網絡的便捷性與即時性的特點，搭建線上「培訓管理系統」，覆蓋齊各安全業務板塊的培訓內容，持續迭代生產培訓課件和教材。本系統中，共計327人次參加線上安全生產考試。

我們建設「大同培訓基地」，購置實操專業教具，以提升僱員理論與實操結合的能力。我們亦加強網絡安全培訓教育，組織網絡安全管理持證培訓，組織京能國際網絡安全宣傳周系列活動。此外，為普及安全生產法，我們開展209場安全生產法專題講解授課和學習培訓，共計1,348人次參加該類活動。

“A Series of Trainings for Safety”

「安全系列培訓」



Production Safety Training Course 安全生產培訓班

40 front-line safety production management personnel participated in the production safety training course. Such training had been carried out from production safety management, electronic marketing, professional technology and other aspects and covered the training of knowledge regarding energy storage and other new trends, aiming to consolidate the professional foundation of production management personnel, and enhance employees' innovation and business awareness.

40名一線安全生產管理人員參加安全生產培訓班。培訓從安全生產管理、電力營銷及專業技術等方面展開培訓。兼顧儲能等新業態的知識培訓，夯實生產管理人員的專業基礎，增強僱員的創新和經營意識。

“BJEI Cup” Safety Knowledge Competition 「京能國際杯」安全知識競賽

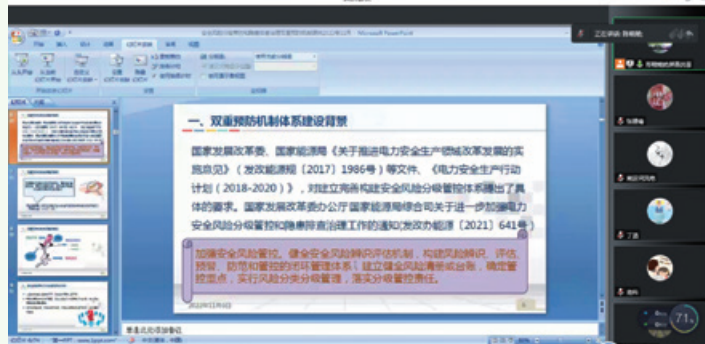
The contents of the competition covered the laws, regulations and rules regarding the safety production. The representative teams participating in the competition actively answered the questions and demonstrated their professional knowledge. The competition practiced the concept of promoting learning through competition and promoting action through learning, aiming to create a positive atmosphere for all employees to learn, understand, follow and use the laws.

競賽內容涵蓋安全生產法律、法規、規程等內容。參加競賽的代表隊積極答題，展現個人專業知識水平。該競賽踐行以賽促學、以學促行的理念，旨在營造全員學法、知法、守法、用法的積極氛圍。



Safety Knowledge Lecture**安全知識講座**

The production safety department of Northern Branch carried out the training of safety knowledge surrounding various aspects, including the formulation and review of emergency plans for power companies, evaluation of development of capability on handling emergency and the dual prevention mechanism for hierarchical control of safety risk and identification and governance of hazards. A total of 3 lectures were held with over 120 trainees participated in.



北方分公司安全生產部圍繞電力企業應急預案編製評審、應急能力建設評估、安全風險分級管控及隱患排查治理雙重預防機制展開安全知識培訓。共計開展3場講座，參訓人員共120多名。

**Fire Drill Training of East China Branch****華東分公司火災演練培訓**

East China Branch organised employees to conduct fire-fighting drills, learn fire-fighting skills, and use fire extinguishers to practice the fire-fighting process, to prevent fire hazards and improve employees' emergency rescue capabilities.

華東分公司組織僱員進行消防演練，學習滅火技能，通過滅火器實操滅火過程，防患於未「燃」，以提升僱員的應急救援能力。

Pandemic Prevention and Control

The Group responded to the national policy of epidemic prevention, optimised our prevention and control measures, and implemented the prevention and control scientifically and precisely. We formulated management measures on epidemic prevention and control in accordance with the guidelines for epidemic prevention issued by government departments. We carried out internal disinfection and sterilisation, covering the main control room, offices, corridors, foyers, dormitories, and public toilets. Externally, we had strict control over incoming personnel and registered them properly. In addition, we strengthened the reserve for anti-epidemic supplies, and regularly distributed KN95 masks, disinfectant gel and emergency medicines to meet the daily protection needs of employees. In order to cope with emergency management, our management agencies formulated flexible epidemic response plans and predicted emergency response methods for different scenarios.

疫情防控

本集團響應國家防疫政策，優化防控措施，科學精準做好防控工作。我們根據政府部門發佈的防疫指南，制定疫情防控管理辦法。我們對內開展消毒工作，覆蓋主控室、辦公室、樓道、門廳、宿舍及公共衛生間等區域，對外嚴控外來人員，對入站人員做好登記工作。此外，我們加強防疫物資的儲備，定期發放KN95口罩、消毒凝膠及應急藥品，以滿足僱員日常防護需求。為做好應急管理準備工作，我們各管理機構制定靈活的疫情處置預案，預判不同場景的應急處理辦法。

Mental Health Counselling

The Group cared about the mental health of its employees, and organised psychological counselling lectures named “Psychological Adjustment for Anti-epidemic (抗疫情 心調試)” to effectively relieve and alleviate the psychological pressure of employees during the epidemic. We invited Ms. Li Caihong (李彩虹), a signed psychological lecturer of 12355 of the Yinchuan Youth League Committee, as the lecturer. Ms. Li worked on various aspects of psychological counselling including emotional awareness, psychological adjustment and experiential meditation.

心理健康疏導

本集團關心僱員的心理健康，組織開展「抗疫情 心調試」心理疏導講座，以有效疏導和緩解僱員疫情期間的心理壓力。我們邀請銀川市團委12355簽約心理講師李彩虹女士作為講座主講人。李女士從覺察情緒、調試心理及體驗冥想等多方面開展心理疏導工作。



Lectures Participation
參與講座



Online Lectures
線上講座

Pursue
Excellence

in Operation
追求

卓越
營運



IMPROVE LONG-TERM MECHANISM

The Group is committed to realising a comprehensive quality, customer service and confidentiality management system to continuously improve the existing power supply services and enhance the quality of supporting services.

Comprehensive Quality Management System

A sound quality management system is an important cornerstone to ensure the product service and quality safety of the enterprise. Under the guidance of the Design and Development Control Procedure, the Project Construction Monitoring and Measurement Control Procedure, the Regulations of Equipment Overhaul and Maintenance Management and the Regulations of Technical Innovation Management and other documents, we set up a systematic and all-round efficient management mechanism, established a comprehensive power plants project design management mechanism, standardised the relevant requirements at the stages of power plants project design, development and operation, thereby forming an internal quality control system covering the entire production cycle from the design to the construction and operation of power plants, and continuously strengthening the forward-looking maintenance management of the power grid.

健全長效機制

本集團致力於實現全面的質量、客戶服務及保密管理體系，不斷精進完善現有供電服務，全面提升供電服務能力與配套服務質量。

全面的質量管理體系

完善的質量管理體系是保障企業產品服務與質量安全的重要基石。於本集團，根據《設計和開發控制程序》、《項目施工監視和測量控制程序》、《設備檢修維護管理規定》及《技術改造管理規定》等參考文件的指導下，我們已搭建了系統化、全方位的高效管理機制，建立全面的電站項目設計管理機制，對電站項目設計、開發、運營等階段的相關規範要求，從而形成了涵蓋從電站設計開發至施工運用全生產周期的內部質量監控體系，持續加強電網前瞻性維護管理。

Quality Assurance Procedure

We believe that quality assurance is the top priority of product service management. In order to ensure project quality and safety performance at the construction site and the effectiveness of the quality management process, we held regular safety production meetings to make arrangements for standardising and strengthening safety management, “Two Tickets and Three Systems” management, equipment management, production management, power marketing, engineering, procurement, and merger and acquisition project management. The Group improved the professional technical supervision and management, summarised and sorted out the technical supervision of new energy power plants, and added three technical guidelines such as the Guidelines for Technical Supervision of Excitation System and Reactive Power Compensation Devices, the Guidelines for Technical Supervision of Scheduling Automation and the Guidelines for Technical Supervision of Power Plant Thermal Instrumentation and Control Systems to regulate the relevant management system and technical standards. In addition, we regularly organised quarterly professional meetings for technical supervision, integrated technical supervision into the daily work of production, established an early warning mechanism for technical supervision, and orderly carried out relevant technical verification and supervision work.

質量檢定流程

我們深明質量檢定為產品服務管理的重中之重。為確保項目質量和施工現場的環境及安全表現，保證質量管制流程高效，我們定期召開安全生產例會，就規範和加強安全管理、「兩票三制」管理、設備管理、生產管理、電力營銷、工程、採購、併購項目管理等各方面工作進行安排部署。本集團完善專業技術監督管理，對新能源電站的技術監督工作進行總結梳理，以及新增《勵磁系統及無功調節設備技術監督導則》、《調度自動化技術監督導則》、《發電廠熱工儀表及控制系統技術監督導則》等三項技術導則規範相關管理制度和技術標準。此外，我們定期組織召開季度技術監督專業會，將技術監督融入生產日常工作中，建立技術監督預警機制，有序開展相關技術核查監督工作。

“Two Tickets and Three Systems” 「兩票三制」制度



“Work Ticket” Management 「工作票」管理

“Work Ticket” shall be used in inspection and rectification, elimination, maintenance, testing and installation, listing name and serial number of the equipment, work content and safety measures

工作票需與檢修、消缺、維護、試驗及安裝等工作中使用，列明設備名稱、編號、工作內容及安全措施等內容

“Operation Ticket” Management 「操作票」管理

The operator of photovoltaic power plants shall fill in the “Operation Ticket” to record the 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

“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 know 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 defines that all production, safety, technical and management personnel have the responsibility to inspect the equipment; 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

Customer Satisfaction Management

Customer satisfaction is an important indicator to monitor product quality. We regularly reviewed our customers' needs, gave timely feedback, and provided reliable service that exceeds their expectations. In order to enhance customer satisfaction and make timely adjustments to our services, the Group has established a multi-level and multi-coverage customer service system, including pre-sales, sales and after-sales stages.

客戶滿意度管理

客戶滿意度是監測產品質量的重要指標。我們定期回溯客戶需求，及時反饋客戶意見，提供超越客戶預期的可靠服務。為提升客戶滿意度，及時針對服務內容進行調整，本集團建立多層級多覆蓋的客戶服務體系，包括售前、銷售、售後階段。

Comprehensive Customer Service System 全面的客戶服務體系



PRE-SALES STAGE 售前階段

- Carry out customer demand research, mining and analysing customer service demand
開展客戶需求調研，挖掘分析客戶服務需求
- Introduce our services and deal with customers' enquiries
介紹我們的服務並回答客戶諮詢
- Publicly promote the quality service commitment system to our customers
向廣大客戶公開推行優質服務承諾制度

SALES STAGE 銷售階段

- Proactively feed back on the progress of the contract
主動反饋合同進度
- Establish customer files to fully meet customers' requirements for electricity commodities
建立客戶檔案，全面滿足客戶對電力商品的要求
- Accelerate the optimisation and integration of power supply service centres, and effectively improve the service quality and emergency repair efficiency in service areas
加快供電服務中心優化整合力度，有效提高轄區內服務質量及故障搶修效率
- Follow up the comments from customers timely and remove customers' doubts
及時跟進客戶評價，消除客戶疑問

AFTER-SALES STAGE 售後階段

- Carry out service satisfaction evaluation and collect feedback on demand
開展服務滿意度測評，收集需求反饋
- Strengthen service supervision and customer visits, and improve the service supervision and evaluation system
強化服務監督與客戶回訪，完善服務監督評價體系
- Based on massive marketing data, explore implicit customer power consumption patterns and innovation points for customer service improvement
基於海量行銷數據，挖掘隱含的客戶用能模式，挖掘客戶服務提升創新點
- Appropriately handle customers' complaints
妥善處理客戶投訴

It is an important way to enhance customer satisfaction by strictly controlling product quality, strengthening product quality control and improving the functioning of the Group's equipment. The Regulations of Device Defects Management, the Regulations of Equipment Overhaul and Maintenance Management and the Regulations of Technical Innovation Management of the Group are guidelines to improve the performance of functioning of the equipment. These regulations have strengthened equipment inspection and maintenance management of the Group to realise professional management, thereby enhancing customer satisfaction.

During the Year, the Group took a series of measures and actions to enhance the service quality of power plants. Firstly, the Group continued the guideline of "Preventive Maintenance as the Mainstay, Supplemented by Post-event Maintenance". During the spring and autumn safety inspection period, we focused on the inspection of electrical heating areas, preventive experiments on electrical equipment, verification of relay protection devices and protection transmission, internal ash cleaning of SVG and inverter device, inspection of high and low voltage rooms of voltage converter and temperature testing of junction box, component wiring boxes and MC4 plugs. Secondly, the Group carried out seasonal safety inspections according to seasonal characteristics, such as wind, flood, lightning, cold and frost inspections, etc., to investigate and eliminate the impact of seasonal safety hazards on equipment and personnel safety in advance, and to ensure the continuous safe and stable economic operation of power plants. Thirdly, the Group carried out special investigation and treatment of relay protection to check whether the relay protection configuration under the existing grounding mode of the power plants meets the requirements of relevant regulations on relay protection; we checked whether the model, capacity, accuracy and variable ratio of the current transformers on each side of the differential protection of the equipment match and checked whether the fault recorder is available and in use and the main electrical equipment simulation, switching access is correct and complete. During this special investigation, a total of 100 problems were found, and rectification plans were formulated for all of them. Fourthly, the Group carried out special investigation of main transformer oil conservators, requiring all power plants to strengthen transformer inspections, closely inspect oil temperature changes and check oil level gauge indications, analyse whether there is any abnormality in the oil conservator, and promptly check and deal with problems found. After investigation, no major problem was found.

嚴格把關產品質量，加強產品質量管制，完善本集團設備運行是提升客戶滿意度的重要途徑。本集團的《設備缺陷管理規定》、《設備檢修維護管理規定》和《技術改造管理規定》為提升設備運行質量的指導性文件。這些規定能夠加強本集團設備檢修維護管理工作，實現專業化管理，進而提升客戶滿意度。

於本年度，在加強電站服務質量方面，本集團採取了一系列措施及行動。一是繼續延續以「預防性維護為主，事後性維護為輔」的方針。在春、秋兩季安全大檢查期間，我們集中安排電氣發熱部位檢查，並開展電氣設備預防性實驗，繼電保護裝置定值核對和保護傳動工作，SVG和逆變器內部清灰，箱變高低壓室檢查及匯流箱、組件接線盒和MC4插頭測溫等工作。二是根據季節特點開展季節性安全檢查，如防風、防洪防汛、防雷、防寒防凍檢查等，提前排查和消除季節性安全隱患對設備和人員安全的影響，保障電站持續安全穩定經濟運行。三是開展繼電保護專項排查治理工作，排查電站現有接地方式下繼電保護配置是否滿足繼電保護相關規程要求；我們排查設備差動保護各側電流互感器型號、容量、精度、變比是否匹配，排查故障錄波器是否可用且在用及主要電氣設備模擬量、開關量接入是否正確完備等。此項專項排查工作中，共發現100項問題，均已制定整改計劃。四是開展主變壓器油枕專項排查治理工作，要求各電站加強變壓器巡視，嚴密檢視油溫變化並核對油位計指示，分析油枕是否存在異常，發現問題及時檢查處理。經排查，未發現重大問題。

PROTECT DATA PRIVACY AND SECURITY

Comprehensive Confidentiality Management System

We understand the importance of data privacy and information security. By formulating internal confidentiality management regulations, improving the confidentiality management system, and clarifying the list of the Group's trade secrets, we effectively prevented the leakage of confidential information and other behaviours that threaten the Group's trade secrets. We regulated the management of confidential data according to the sensitivity of the data, and regularly inspected the implementation of confidentiality in every department and area. At the same time, each department should formulate a list of departmental trade secrets for the Group to support its supervision work.

In addition to the management regulations, the Group also bound its employees to safeguard the privacy and security of customer information. The Group's employees were required to sign the confidentiality agreement to fulfil their responsibility to protect the sensitive data of the Group. We also organised employee training on laws and regulations relating to confidentiality and regularly required relevant personnel who had accessed to sensitive data to sign confidentiality declarations, etc. to avoid any intentional and unintentional disclosure of information.

Strengthen Cyber Security Management

The Group has formulated the Regulations of Network and Information Security Management to continuously improve the enterprise standard system. As for the Group's equipment, all data in the power plant cloud system is encrypted and disconnected with external network. We also focused on strengthening the management and control of on-site personnel in key areas such as relay protection rooms and information server rooms, and standardised the use of USB flash drives. We implemented various management and preventive measures, including the installation of online monitoring equipment for cyber security, and regular evaluation of the safety precautions situation and the protection rating of the power plants.

保障資料私隱及安全

全面的保密管理體系

我們了解數據私隱及資料安全的重要性。我們通過制定內部保密管理條例，完善保密管理體系，並釐清本集團商業秘密事項清單，有效防止機密資料外洩等對本集團商業秘密造成威脅的行為。我們根據資料的敏感程度規範機密資料管理，定期監察各部門及區域的保密情況。同時，各部門需制定部門商業秘密事項列表，支持本集團的監察工作。

除管理規定外，本集團對僱員也作出一定約束，以保障客戶的資料隱私和安全。本集團的僱員須簽署保密協議，履行保護本集團的敏感性資料的責任，並組織僱員接受保密相關法律及規例的培訓，定期要求接觸敏感資料的相關人員簽署保密聲明等，避免任何有意及無意的資訊披露。

強化網絡安全管理

本集團制定《網絡與信息安全管理規定》，不斷健全企業標準體系。於本集團設備層面，發電站雲系統中的全部資料都經過加密並且與外部網絡隔離。我們亦著重加強繼電保護間、信息機房等重點區域現場人員管控，規範USB閃存盤使用等。我們實施多項管理和預防措施，包括安裝網絡安全線上監測裝置，定期對發電站進行安全防護評估及保護評級。

During the Year, we also promoted the genuineization of software to ensure the stability and security of software data. In accordance with the requirements of the 2022 Software Genuineization Work Plan, a leading group for software genuineization work was established, and relevant systems were formulated to standardise the management and detailed rules of software genuineization.

於本年度，我們還推行軟件正版化工作，確保軟件資料的穩定性和安全性。按照《2022年軟件正版化工作方案》文件要求，成立軟件正版化工作領導小組，並制定相關制度規範軟件正版化管理與細則操作等。

Actions in 2022
2022年行動

<p>Carried out cyber security grade-protecting assessment and rectification, and implemented cyber security upgrades in server rooms. 開展網絡安全等保測評整改，並實施機房網絡安全升級改造。</p>	<p>Finished installing Tianqing Terminal Protection software on 455 units, realising that all office computers in use were installed. 完成天擎終端防護軟件安裝455台，實現所有在用辦公電腦都已安裝。</p>	<p>Assisted in the implementation of various business information management system projects: upgraded the online function of the Group's existing OA system, optimised and adjusted the OA process in accordance with the Group's management improvement requirements to ensure the stability and security of data; 協助實施各業務信息化管理系統項目：對本集團現有的OA系統進行線上功能升級，並按照本集團管理提升要求，對OA流程進行優化與調整，確保資料的穩定性和安全性；</p>
<p>Completed the basic information management system, file management system, performance appraisal system and online operation of the power plants, verified important data and system backups, and verified the integrity of data backups. 完成電站基礎信息管理系統，檔案管理系統、績效考核系統及上線運行，核查重要數據及系統備份情況，並驗證數據備份的完整性。</p>	<p>Promoted software genuineization work: unified submission of CAD genuineization requirements and procurement of 600 sets of Tianqing Interruption Protection software and 100 sets of WPS domestic software. 推行軟件正版化工作：統一提交CAD正版化需求，並以採購天擎中斷防護軟件600套、WPS國產軟件100套。</p>	<p>Strived to implement cyber security work according to the "20th National Congress of the Communist Party of China" and there have been on 24-hour duty since 9 October of this Year to oversee the security of cyber information and to ensure that no cyber security incidents occurred during the period. 著力落實「二十大」網絡安全保障工作，自本年度10月9日起，進行24小時值班，監督網絡信息安全，保障期間未發生網絡安全事件。</p>



In addition, the Group actively promoted network publicity activities, held a series of activities for “National Cyber Security Promotion Week,” organised training on cyber security laws and regulations, technology system and strategy configuration of cyber security protection for all branches and subsidiaries, and conducted comprehensive cyber security publicity in various forms such as posters, promotional films and popular science articles to enhance the risk awareness, responsibility awareness and security awareness of all departments and branches and subsidiaries and improve the overall cyber security prevention and protection capability.

此外，本集團積極推進網絡宣傳活動，舉辦「國家網絡安全宣傳周」系列活動，組織各分、子公司開展網絡安全法律法規、網絡安全防護技術體系和策略配置培訓，並通過海報、宣傳片、科普文章等多種形式進行全方位網絡安全宣傳，切實增強各部門和各分、子公司的風險意識、責任意識和安全意識，提升整體網絡安全防範與保障能力。

“2022 Cyber Security” Special Training 「2022年度網絡安全」專題培訓



The meeting was held both online and offline, with more than 200 participants.

與會現場，採用線上線下同步進行，超過200人參加。

From the five aspects including the characteristics of cyber attacks, the cyber security situation the country faced, cyber attacks case study, cyber warfare and personal security precautions, the training explained the cyber security knowledge and prevention methods in detail.

講座從網絡攻擊的特點、國家面臨的網絡安全形勢、網絡攻擊案例分析、網絡戰以及個人安全注意事項等五個方面，詳細講解網絡安全知識與防範手段。

The illustrations enhanced employees’ awareness of the importance of cyber security, reinforced relevant security precautions, and passed on the general knowledge of personal information security to them.

通過講解，提高僱員對網絡安全重要性的認識，增強相關安全防範，並掌握個人信息安全保障常識。

The Group's business neither involves in advertising nor product labelling, therefore, our operation is free from such impact. During the Year, we were not aware of any violation of the laws and regulations⁵ that have a significant impact on the Group relating to product responsibilities such as health, safety and privacy of products and services provided.

PROMOTE EXCELLENCE AND INNOVATION

Technology Innovation and Practice

Innovation and evolution reflect our development philosophy and operation strategy. The Group emphasises the importance of innovative thinking and original innovation, and focuses on the long-term development of the enterprise. We proactively promote the institutional and organisational development of technology innovation, continuously implement the "1+1+N" technology innovation system and take the Technology Innovation Committee as the core of the innovation management system, which is composed of the Technology Innovation Office and the Expert Committee. The Group has published the Measures for Scientific and Technological Projects Management, the Measures for Science and Technology Projects Cost Management, the Regulations for Science and Technology Innovation Management and the Measures for Science and Technology Innovation Incentives Management to steadily promote the construction of relevant management system and the sustainable development of the Group.

The safety production department of the Group applied unmanned aerial vehicle testing actively according to the Company's scientific and technological innovation development plan and the actual operation of power plants. During the Year, we promoted the application of unmanned aerial vehicle to carry out hot spot inspections, which can avoid fires in photovoltaic areas to a certain extent that may be caused by severe hot spots, and also enable early detection of inefficient components to improve power generation. Through inspection, the Group found a total of 10,839 pieces of various problems such as serious hot spots, broken glass and junction box failures. The hot spots found have been repaired or replaced according to different fault types.

本集團的業務不涉及廣告及產品標籤活動，故這些方面對我們的營運沒有影響。於本年度，我們並不知悉任何違反有關所提供產品和服務的健康與安全及私隱事宜等產品責任且對本集團有重大影響的法律及規例⁵的情況。

推動卓越創新

技術革新與實踐

創新衍變彰顯我們的發展理念及營運策略。本集團強調創新思維與原創性革新的重要性，並著眼於企業長遠發展。我們積極推進科技創新制度建設及組織建設，延續貫徹「1+1+N」科技創新體系，並以科技創新委員會為創新管理體系核心，下設科技創新辦公室和專家委員會。本集團先後發佈《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》及《科技創新獎勵管理辦法》，穩步推進相關管理體系建設，推動本集團可持續發展。

本集團安全生產部圍繞本公司科技創新發展規劃，結合電站工作實際情況，積極開展無人機檢測的應用。於本年度，我們推廣應用無人機開展組件熱斑檢測。熱斑檢測將在一定程度上避免嚴重熱斑可能引發的光伏區火災，也能提前發現低效組件，提升發電量。通過檢測，本集團共發現嚴重熱斑、玻璃破碎、接線盒故障等各類問題組件10,839塊。發現的熱斑正在按照不同的故障類型進行維修或更換處理。

⁵ For laws and regulations related to product responsibilities, please refer to the section of "Appendix I: Compliance with List of Laws and Regulations on Environmental, Social and Governance".

產品責任相關法律及規例請參見「附錄一：遵守有關環境、社會及管治的法律及規例清單」章節。



Lianghuai automatic cleaning system 兩淮自動清洗系統

We promoted the Lianghuai automatic cleaning system to Heyuan and Yangjiang Mashui power plants in Guangdong. At present, the construction and acceptance have been completed, and it is estimated that the annual power generation can be increased by 3.3 million kWh.

我們將兩淮自動清洗系統推廣到廣東河源和陽江馬水電站。目前已完成施工和驗收，預計年可提升發電量330萬千瓦時。



Automatic fire alarm device based on image recognition technology 基於圖像識別技術的火災自動報警裝置

The promotion of hot spot detection by unmanned aerial vehicles to the whole Group can effectively prevent the occurrence of fire accidents in photovoltaic power plants.

將熱斑檢測無人機推廣到全集團，可有效預防光伏電站火災事故的發生。



Remote data acquisition solution 遠程數據採集方案

We carried out the pilot scheme for the construction of centralised control centre and the investigation and research of remote data sampling scheme to prepare for the digital transformation of the Group and improved the overall information management level of safety production.

我們開展集控中心建設試點方案，遠程數據採樣方案調研等工作，為本集團開展數字化轉型做準備，提升整體安全生產信息化管理水平。

INTELLECTUAL PROPERTY PROTECTION

Intellectual property is an important competitiveness for the Group. Focusing on the protection of intellectual property rights, i.e. strengthening the management of intangible assets, reflects an enterprise's fulfilment to its social responsibility and constitutes an integral part of the sustainable and innovative development of an enterprise. In order to reduce the risk of intangible asset management, safeguard the interests of the Group, ensure the safety and integrity of intangible assets and take advantage of economic and social benefits, the Group has formulated an internal policy entitled the Measures for Intangible Assets Management, as well as a normative reference entitled the Specifications for the Administration of Intellectual Property Rights of Enterprises. According to the Measures for Intangible Assets Management, the patents and intellectual property rights owned by the Group, such as non-patented technologies and software, shall be managed as intangible assets and protected by the Group.

保護知識產權

知識產權是本集團的重要競爭力。注重知識產權保護，即強化無形資產管理，是企業承擔社會責任的體現，是企業實現可持續創新型發展的重要環節。為了降低無形資產管理風險，維護本集團權益，保證無形資產安全、完整，發揮經濟效益和社會效益，本集團已制定內部政策《無形資產管理辦法》以及規範性引用《企業知識產權管理規範》。《無形資產管理辦法》規定本集團擁有的專利權，非專利技術、軟體等知識產權屬於無形資產管理，受到本集團的保護。

During the Year, the Group applied for 3 invention patents and 36 utility model patents. At present, 11 utility model patents have been authorised. During the Year, the Group also applied for 6 software copyrights, 5 of which have been authorised, and had 4 papers published in core journals. During the Year, the Group did not receive any report on infringement of intellectual property rights.

PURSUE SUSTAINABLE SUPPLY

Supply Chain Management

The Group is committed to applying the concept of sustainable development to supply chain management, building an integrated, standardised and informationised supplier management system, so that the Group's suppliers can have better environmental, social and governance performance. In order to establish a sustainable supply chain and procurement management system, as well as better manage the environmental, social and governance risks of the supply chain, the Group has formulated a series of policies, including the Measures for Purchasing Planning Management, the Measures for Supplier Management, the Measures for Bidding Management and the Measures for Purchasing Management, to provide detailed guidelines for the Group to select suppliers and evaluate the performance of suppliers, so as to ensure that the risks in the Group's supply chain are minimised. The business planning department is the centralised management and implementation body of the procurement management system.

In 2022, the Group passed and implemented the Measures for Material Management, established the Group's material management system and principles, and listed in detail the requirements and methods for the Group's material storage management, waste material management and risk control of the material management process. The Group's business planning department will conduct relevant inspections every year to ensure that the procurement plan and material management meet the Group's requirements. During the Year, the Group had 670 suppliers, which were divided into three categories: materials, engineering and services, covering market entities such as state-owned enterprises, private enterprises and individual merchants. Among which, 666 suppliers were located in Mainland China, and 4 suppliers were located in Hong Kong, China. In 2022, the Group was valued at approximately RMB659 million in the procurement currency.

於本年度，本集團共申報發明專利3項，實用新型專利36項。目前已經獲得實用新型專利授權11項。本年度申報軟件著作權6項，目前已經獲得5項授權，並在核心期刊發表論文4篇。於本年度，本集團侵犯知識產權的個案報告數量為零。

追求可持續供應

供應鏈管理

本集團致力於將可持續發展理念應用到供應鏈管理中，構建一體化、標準化、信息化的供應商管理體系，使本集團的供應商有更優異的環境、社會及管治表現。為了建立可持續供應鏈和採購管理體系，以及更好地管理供應鏈的環境、社會及管治風險，本集團已制定一系列政策，包括《採購計劃管理辦法》、《供應商管理辦法》、《招標管理辦法》和《採購管理辦法》等，為本集團挑選供應商和評估供應商的表現提供詳細的指導方法，以確保將本集團供應鏈的風險降到最低。經營計劃部是採購管理體系的歸口管理與實施機構。

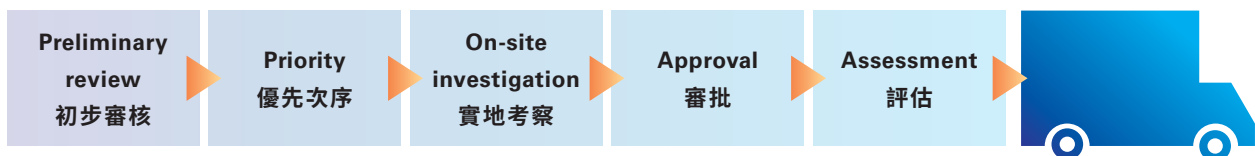
2022年，本集團通過並實施《物資管理辦法》，建立本集團物資管理體制和原則，詳細列明本集團的物資倉儲管理、廢舊物資管理、物資管理過程風險控制的要求和方法。本集團的經營計劃部將每年進行相關檢查以確保採購計劃和物資管理符合本集團要求。於本年度，本集團共有670個供應商，分為材料、工程和服務三大類，涵蓋國有企業、民營企業及個體商戶等市場主體企業。其中，666個供應商位於中國大陸，4個供應商位於中國香港。2022年，本集團的採購貨幣估值約為人民幣659百萬元。

Admission Criteria for Suppliers

The Group adheres to the principles of legal compliance, fairness, impartiality and openness in its procurement. We follow the Measures for Supplier Management, the Measures for Purchasing Management and the Measures for Bidding Management to strictly review the qualifications of suppliers. We are committed to establishing long-term mutually beneficial relationships with suppliers, cultivating quality suppliers, and continuously improving the quality of procurement. All suppliers are required to provide corresponding information according to the Supplier Verification Report. In particular, in order to better understand the management of environmental, social and governance risks by suppliers, the Group requires suppliers to cover “sustainable competitiveness” in their verification reports by including social responsibility-related initiatives (such as waste product recycling programs) and business development directions in the scope of review. In addition, the Group’s selection factors for potential suppliers mainly include industry reputation, performance, partnership, market research, etc. All of the Group’s suppliers are subject to the admission criteria for suppliers and supplier selection process adopted by the Group.

Supplier Selection

The Group implements a qualification review system for suppliers. The business planning department establishes a supplier assessment and evaluation system, and each department conducts assessment and evaluation of suppliers in accordance with the principle of “who uses and who evaluates”. In addition, the Group has established an internal database of bidding evaluation experts and actively absorbed experts from various functional departments and regional companies into the database to ensure a comprehensive review of suppliers’ qualifications and relevant experience and select qualified suppliers. The Group’s supplier selection process is as follows:



供應商准入標準

本集團的採購堅持依法合規、公平、公正和公開的原則。我們遵循《供應商管理辦法》、《採購管理辦法》和《招標管理辦法》嚴格審查供應商的資格，並致力於與供應商建立長期互惠共贏的關係，培育優質供應商，並不斷提高採購質量。所有供應商均需依據《供應商核查報告》提供相應信息。其中，為了更好了解供應商對其環境、社會及管治風險的管理，本集團要求供應商在核查報告中涵蓋「可持續競爭力」，將社會責任相關舉措（如廢棄產品回收計劃）和業務發展方向等列入考察範圍。此外，本集團對潛在供應商的選擇因素主要包括行業口碑、業績、合作關係、市場調研等。本集團所有的供應商均須遵守本集團採納的供應商准入標準及甄選流程。

供應商甄選

本集團對供應商實施資格審查制，由經營計劃部建立供應商考核評價體系，按照「誰使用誰評價」原則，各單位對供應商進行考核評價。此外，本集團內部已建立評標專家庫，積極吸納各職能部門、區域公司專家入庫，以確保對供應商的資質和相關經驗的全面審查，挑選出合格的供應商。本集團的供應商甄選流程如下：

When selecting suppliers, the Group gives priority to inviting suppliers with good reputation in the industry, emphasising social responsibility and passing environmental system certification according to the industry category of the project. The Group has included system certification initiatives in its contracts, incorporated the “Agreement on Compliance with Ethical Standards of Social Responsibility” into procurement contracts. The Group also gives priority to suppliers who produce greener and more efficient products. In addition, in order to help the Group form a long-term and reliable supply chain, we, through market research, annually invites suppliers who are committed to providing technology and service support for the development of new energy and are deeply involved in the development of new energy.

Supplier Assessment and Monitoring

In order to strengthen supply chain management and ensure that the products and services of suppliers comply with laws and regulations and the requirements of the Group, we carry out supplier performance assessment every year, involving quality, business, service, management and other aspects. The Group has followed the principle of “quantitative evaluation” of supplier management and internal policy and established a supplier evaluation system shared by all regions of the Group, setting quantifiable evaluation indicators for different types of suppliers in terms of corporate management level, technical level, cooperation in the procurement process, quality in the contract performance process, delivery progress and service level. In order to continuously optimise the Group’s supply chain management system, we will give priority to inviting suppliers with combined quality, business and service ratings of A/B/C/D/E in our procurement based on year-end supplier evaluations, and will suspend or terminate cooperation with suppliers with low ratings.

在選擇供應商時，本集團針對項目行業類別優先邀請行業內口碑較好、注重社會責任承擔、通過環境體系認證的供應商。本集團已在合同中加入體系認證的倡導，將「遵守社會責任道德標準協議書」納入採購合同，同時也將優先考慮生產更加綠色環保、能提高產品生產效率的供應商。此外，為了助力本集團形成長期、可靠的供應鏈，我們通過市場調研，每年補充邀請致力於為新能源發展提供技術、服務支持、且在新能源領域深耕發展的供應商。

供應商評估與監察

為加強供應鏈管理，確保供應商的產品和服務符合法律法規及本集團的要求，我們每年開展供應商表現評估工作，涵蓋質量、商務、服務和管理等方面。本集團遵循供應商管理「量化評價」的原則和內部政策，已建立本集團各區域共享的供應商評價體系，針對不同類型供應商制定在企業管理水平、技術水平、採購過程中的配合度、履約過程中的質量、交付進度和服務水平等多方面的可量化評價指標。為了持續優化本集團的供應鏈管理體系，我們將根據年終供應商的評估情況，在採購時優先邀請質量、商務、服務綜合評分為A/B/C/D/E級別的供應商，且與低評級的供應商暫停或終止合作。

Sustainable Procurement

The Group actively responds to the national goal of “double carbon” and promotes sustainable procurement. When selecting suppliers of new energy projects of BJEI, the Group attaches importance to the review of environmental protection and other pollution prevention measures. At the same time, in order to protect water and soil resources in the project area and to reduce and manage new water and soil erosion during the construction and operation of the project, the Group focuses on the comprehensive water and soil erosion prevention and control system that combines engineering measures, plant measures, temporary measures and management measures developed by suppliers during the construction and operation. In the future, the Group will continue to implement sustainable concepts, strictly select suppliers and standardise the procurement process and supplier management to reduce environmental, social and governance risks associated with the supply chain.

可持續採購

本集團積極響應國家「雙碳」目標，積極推動可持續採購。在選擇京能國際的新能源項目供應商時，本集團重視對環境保護及其他污染防護措施的審查。同時，為保護項目區水土資源，減少和治理工程建設及運行中的新增水土流失，本集團重點審查供應商在工程建設施工和生產運行過程中制定的工程措施、植物措施、臨時措施及管理措施相結合的水土流失綜合防治體系。未來，本集團將繼續踐行可持續理念，嚴格篩選供應商，規範採購流程和供應商管理，以降低供應鏈相關的環境、社會及管治風險。

Abide by

Compliance

Operation

恪守

合規
營運



BUILD BUSINESS REPUTATION

The Group conducts stringent compliance management and follows high-level business ethics to prevent the risk of non-compliance and protect the sound operation of the enterprise, while building an important foundation for sustainable development. We all along adhere to good business practices and values, persistently improve our compliance management system, conduct integrity and anti-corruption training, and strictly regulate the behaviours of all employees and partners to ensure compliance and transparency in our business activities, and are committed to being a responsible and outstanding corporate citizen.

Operation with Integrity

The Group believes that integrity is an important intangible asset of an enterprise. We strive to create a corporate culture of integrity management and improve sustainable development. We are committed to winning the trust of stakeholders by gaining reputation with integrity and ensuring benefits with quality.

We have been in strict compliance with local and international laws, and formulated comprehensive compliance management policies and other employee policies, which have standardised the basic moral standards for employees under various management principles of conflicts of interest, and continuously monitored potential dishonesty. The Group's management has also taken the lead in establishing systems and norms to encourage integrity in enterprises, improving the positions, evaluation system and incentive system for employees at all levels, and strengthening integrity education in the construction of corporate culture so as to continuously enhance the level of enterprise's integrity.

Anti-corruption and Whistleblowing Policy

The Group is vigilant in preventing irregularities such as bribery and conflict of interest, and has strict requirements on the behaviours of employees. All employees are prohibited from soliciting any advantages from clients, suppliers, or any person in connection with the Group's business. We believe that the acceptance of relevant benefits may affect the objectivity of employees in performing their duties, resulting in employees acting against the interests of the Group. Therefore, we require employees declining advantages offered on any occasion, including the gifts such as cash, red packets, shopping cards, checks and securities, etc.; if they cannot refuse immediately, they should take the initiative to report to their superiors and hand it over to the department heads for unified treatment.

樹立商業聲譽

本集團開展嚴格的合規管理並遵循高水準的商業道德準則，在防範違規風險及保障企業穩健運營的同時，構建可持續發展的重要根基。我們長期恪守良好的商業行為準則和價值觀，持續健全合規管理制度，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，確保經營活動之合規與透明，致力成為負責任的優秀企業公民。

誠信經營

本集團相信誠信是企業的重要無形資產，我們竭力打造誠信經營之企業文化並健全可持續發展。我們致力以誠信贏得聲譽、以質量確保效益，力獲各持份者之信任。

我們嚴格遵守當地及國際法律，制定完善的合規管理制度及相關僱員政策，規範於各種利益衝突管理原則下的僱員基本道德準則，並持續監督潛在的不誠信行為。本集團管理層亦牽頭建立鼓勵企業誠信行為的制度規範，完善各級人員的崗位、考核制度及激勵制度，強化企業文化建設中的誠信教育，從而持續提升企業誠信水平。

反貪污與舉報政策

本集團嚴防賄賂及利益衝突等不合規行為的發生，並對僱員行為作出嚴格要求。我們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。我們認為收受相關利益可能會影響僱員履行職責的客觀性，從而導致僱員作出違背本集團利益的行為。因此，我們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。

During the Year, the Group updated the Measures for Compliance Consultation and Reporting Management to further improve the compliance risk management system and internal monitoring mechanism. The Measures for Compliance Consultation and Reporting Management clarifies the responsibilities of the legal compliance department, the audit and supervision department and other relevant departments, and provides clear guidelines on the reporting management process.



The Group encourages all employees to seek guidance from the relevant departments on compliance policies that are in doubt 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 channels for whistleblowers to report in real names or anonymously such as WeChat, email, phone, text message, and visits. The legal compliance department and the audit and supervision department will be responsible for handling the reported incidents, respect the wishes of the whistleblower and keep strict confidentiality regarding the whistleblower and the contents of the report. Once the behaviours are ruled as a violation of ethical standards, involved employees would be subject to economic and administrative penalties. If the violation is serious, the Group will consider terminating their employment or report to the relevant authorities.

During the Year, we held anti-corruption training seminars with speakers from Independent Commission Against Corruption of Hong Kong. The training covered various aspects of integrity management, corporate governance and potential corruption risks, as well as anti-corruption requirements in the ESG report, with the aim of preventing employees from falling into corruption traps and ensuring that the Group's directors, management and employees were acquainted with updated understanding of anti-corruption.

During the Year, the Group strictly complied with Prevention of Bribery Ordinance and other relevant national laws and regulations⁶ against corruption. The Group was not aware of any violation of relevant 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 cases.

⁶ For laws and regulations related to anti-corruption, please refer to the section of "Appendix I: Compliance with List of Laws and Regulations on Environmental, Social and Governance".

反貪污相關法律規例請參見「附錄一：遵守有關環境、社會及管治的法律及規例清單」章節。

於本年度，本集團更新了《合規諮詢與舉報管理辦法》，以進一步完善合規風險管理體系和內部監督機制。該管理辦法明確了法務合規部、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。

本集團鼓勵全體僱員針對有疑問的合規政策向相關部門尋求指導意見，亦支持僱員、客戶、商業夥伴及其他持份者監督和舉報違反合規管理及其他相關政策的行為。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。法務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。若調查屬實，涉事僱員將受到行政和經濟處罰；若情況嚴重者，本集團會考慮終止其僱傭關係或移交司法機關處理。

我們於本年度舉行反貪污培訓講座，由香港廉政公署人員擔任講者。培訓內容涵蓋誠信管理、企業管治及潛在貪污風險、《環境、社會及管治》報告中的反貪污要求等各個方面，旨在提防僱員誤入貪污陷阱，並確保本集團董事、管理層及僱員對反貪污的認識有所更新。

於本年度，本集團嚴格遵守包括《防止賄賂條例》在內的有關反貪污政策的國家法律及規例⁶。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。

ADVOCATE COMPETITION COMPLIANCE

The Group believes that the healthy development of the entire industry depends on the strict compliance of all enterprises with laws and regulations related to anti-monopoly and fair competition, as well as the joint maintenance of fair market order. Therefore, we strictly comply with the Company Law of the PRC, the Anti-Monopoly Law of the PRC, the Anti-Unfair Competition Law of the PRC and other applicable laws and regulations⁷ to ensure that we do not engage in conduct that may harm the market and fair competition, and we are aware that management should bear corresponding economic and legal responsibilities.

For a long time, the Group has adhered to the principle of “integrity of contracts” to compete and cooperate on the premise of complying with national policies and laws as well as perform the agreements and contracts to achieve common interests and mutual development. During the Year, we did not have legal proceedings relating to improper competition and anti-monopoly incidents.

DEVOTE TO COMMUNITY CONSTRUCTION

The Group is committed to promoting shared achievements in clean energy technology in the residential areas under its jurisdiction of the operation through the use of the Company’s platform resources and industry advantages, thus promoting the long-term sustainable economic and social development of the residential areas. In addition, as usual, we sign paper documents with surrounding villagers such as land use agreements before any construction project involving land acquisition is carried out to ensure that our business activities are in the interests of the community. During the Year, we actively participated in social responsibility practices such as anti-epidemic assistance, rural revitalisation, sponsorship for education, rural poverty alleviation and community service, and the total expenditure amounted to RMB11.43 million.

倡導競爭合規

本集團相信，整個行業的健康發展有賴於所有企業對反壟斷和公平競爭相關法律法規的嚴格遵守，以及對市場公平秩序的共同維護。因此，我們嚴格遵循《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⁷，確保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。

長期以來，本集團堅持以契約為基礎構建誠信，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，我們並無針對不當競爭行為和反壟斷事件的法律訴訟個案。

投身社區建設

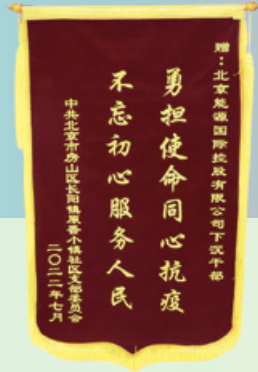
本集團致力透過利用公司平台資源及行業領域優勢，推動營運所轄社區共享清潔能源技術發展成果，進而推動社區在經濟及社會方面的長期可持續發展。此外，按照慣例，我們於任何涉及徵用土地的建設項目開展之前，均會與周邊村民簽訂紙面的文件，例如用地協議，以確保我們的業務活動合乎社區利益。於本年度，我們積極投身於抗疫援助、鄉村振興、助學育人、鄉村扶貧和社區服務等社會責任實踐，並累計支出總額人民幣11.43百萬元。

⁷ For laws and regulations related to competition compliance, please refer to the section of “Appendix I: Compliance with List of Laws and Regulations on Environmental, Social and Governance”.

競爭合規相關法律及規例請參見「附錄一：遵守有關環境、社會及管治的法律及規例清單」章節。

Fighting The Epidemic Together

齊心抗疫



In March 2022, the novel coronavirus broke out in Beijing with a multi-spot dispersal pattern, and the situation of epidemic prevention and control was severe. Many Youth League members of the Group devoted themselves into different communities, went deep into the front line of epidemic prevention and control, and actively supported the epidemic prevention work.

2022年3月，北京市新冠肺炎疫情突發，呈多點散發態勢，疫情防控形勢嚴峻。本集團多名團員青年投入到不同社區，深入疫情防控一線，積極支援防疫工作。

We insist on supporting the localities with practical actions to help the epidemic prevention and control work in various places. In August 2022, the Group's Qionghai Tanmen 100MW agricultural-photovoltaic complementary demonstration project provided 4,000 catties of water spinach to Qionghai City Vegetable Basket Company in Hainan Province* (海南省瓊海市菜籃子公司).

我們堅持用實際行動支援地方，助力各地疫情防控工作。2022年8月，本集團瓊海潭門100兆瓦農光互補示範項目向海南省瓊海市菜籃子公司提供了4,000斤空心菜。



Rural revitalisation

鄉村振興

In November 2022, the Group donated RMB2.2 million to Xilin Gol League in Inner Mongolia through the Beijing Red Cross Foundation, and the money was used to purchase various urgently needed medical supplies and life support supplies for frontline medical staff. In addition to supporting the local epidemic prevention and control work, the Group has always adhered to the Beijing-Mongolian cooperation as its duty and due responsibility, and worked with the local government to actively promote the “Photovoltaic Sand Control Ecological Restoration and Rural Revitalisation Industrial Development Integration 10GW Base (Green Power into Beijing) Project in Hunshandake Sandy Land, Zhengxiangbai Banner, Xilin Gol League, Inner Mongolia (內蒙古錫林郭勒盟正鑲白旗渾善達克沙地光伏治沙生態修復暨鄉村振興產業發展融合10GW基地(綠電進京)項目)” and “Wind and Solar Energy Storage and Hydrogen-produced Green Ammonia Project in Duolun, Xilin Gol League, Inner Mongolia (內蒙古錫林郭勒盟多倫風光儲氫制綠氨項目)”, using the renewable energy industry as a means to help Inner Mongolia expand rural revitalisation and industrial development achievements, and to help Beijing and Inner Mongolia realise the goal of “double carbon” earlier.



2022年11月，本集團通過北京市紅十字基金會定向向內蒙古錫林郭勒盟捐贈人民幣220萬元，用於採購各類急需的醫療物資以及一線醫護人員的生活保障物資等。除了支援該地疫情防控外，本集團始終堅持把京蒙協作作為分內之事和應盡之責，攜手當地政府積極推進「內蒙古錫林郭勒盟正鑲白旗渾善達克沙地光伏治沙生態修復暨鄉村振興產業發展融合10GW基地(綠電進京)項目」與「內蒙古錫林郭勒盟多倫風光儲氫制綠氨項目」，以可再生能源產業為手段，助力內蒙古拓展鄉村振興和產業發展成果，助推京蒙早日實現「雙碳」目標。

Sponsorship for Education

During the Year, the Group donated RMB20,000 to the Education Promotion Association of Hexi, Yangchun City, Guangdong Province for teaching awards, bonuses and student aid. The grant supported a total of 40 people in 13 schools.

Event sponsorship

During the Year, the Group invested RMB50,000 in sponsoring the 13th Tibet Autonomous Region Games and the 5th Ethnic Traditional Sports Games.

助學育人

於本年度，本集團向廣東省陽春市河西教育促進會捐款人民幣2萬元用於開展獎教、獎金及助學工作。該款項資助了13所學校共計40人。

活動贊助

於本年度，本集團投入人民幣5萬元用於贊助西藏自治區第十三屆運動會暨第五屆民族傳統體育運動會開展。

Community Service

社區服務

The Group has actively participated in community services and fulfilled social responsibility through small actions. During the Year, we went into the community to carry out the themed activity of "Working Together, Party Members Take the Lead in Garbage Sorting". Through the distribution of pamphlets and the popularisation of garbage separation knowledge, we strengthened the awareness of garbage sorting in the community, enhanced the implementation and accuracy of garbage sorting and helped create a more civilised and healthy community environment.

本集團一直積極投身社區服務，用點滴行動踐行社會責任。於本年度，我們走進社區開展「同心攜手，垃圾分類黨員先行」主題活動。通過分發宣傳冊和開展垃圾分類知識科普等，強化社區垃圾分類意識，提升垃圾分類投放的執行力和準確率，助力營造一個更文明健康的社區環境。



Appendix I: Compliance with List of Laws and Regulations on Environmental, Social and Governance

附錄一：遵守有關環境、社會及管治的法律及規例清單

Aspect of ESG Reporting Guide ESG報告指引層面	Laws and regulations complied with by the Group that have a significant impact on the Group 本集團遵守對本集團有重大影響的法律及規例	Compliance status during the Year 於本年度的合規情況	
A. Environmental Area A.環境範疇			
Aspect A1: Emissions 層面A1：排放物	General applicable laws and regulations 一般適用的法律及規例	Environmental Protection Law of the PRC 《中華人民共和國環境保護法》 Law of the PRC on Environmental Impact Assessment 《中華人民共和國環境影響評價法》 Environmental Protection Tax Law of the PRC 《中華人民共和國環境保護稅法》 Regulation on the Implementation of the Environmental Protection Tax Law of the PRC 《中華人民共和國環境保護稅法實施條例》 Law of the PRC on Promoting Clean Production 《中華人民共和國清潔生產促進法》 Regulation of the PRC on Nature Reserves 《中華人民共和國自然保護區條例》 Convention on Biological Diversity 《生物多樣性公約》 Energy Conservation Law of the PRC 《中華人民共和國節約能源法》	Strictly abided by and did not violate laws and regulations that have a significant impact on the Group regarding air and GHG emissions, discharges into water and land, and generation of hazardous and non-hazardous waste 嚴格遵守且無違反對本集團有重大影響的有關廢氣和溫室氣體排放、向水及土地排污、有害及無害廢棄物的產生的法律及規例
Air emissions 廢氣排放	Prevention and Control of Atmospheric Pollution Law of the PRC 《中華人民共和國大氣污染防治法》		
GHG emissions 溫室氣體排放	United Nations Framework Convention on Climate Change 《聯合國氣候變化框架公約》 Vienna Convention for the Protection of the Ozone Layer 《保護臭氧層維也納公約》 Regulation on the Administration of Ozone Depleting Substances 《消耗臭氧層物質管理條例》 Montreal Protocol on Substances that Deplete the Ozone Layer 《關於消耗臭氧層物質的蒙特利爾議定書》		

Aspect of ESG Reporting Guide ESG報告指引層面	Laws and regulations complied with by the Group that have a significant impact on the Group 本集團遵守對本集團有重大影響的法律及規例		Compliance status during the Year 於本年度的合規情況
Aspect A1: Emissions 層面A1：排放物	Management on discharges into water and others related to water resources 向水排污及其他與水資源相關的管理	Water Law of the PRC 《中華人民共和國水法》 Water Pollution Prevention and Control Law of the PRC 《中華人民共和國水污染防治法》 Regulation on Urban Drainage and Sewage Treatment 《城鎮排水與污水處理條例》 Marine Environment Protection Law of the PRC 《中華人民共和國海洋環境保護法》 Regulation of the PRC on the Control over Dumping Wastes into the Ocean 《中華人民共和國海洋傾廢管理條例》 Regulation on the Prevention and Control of Vessel-induced Pollution to the Marine Environment 《防治船舶污染海洋環境管理條例》 Administrative Regulation on the Prevention of Environmental Pollution Caused by Dismantling of Vessels 《防止拆船污染環境管理條例》 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter 《防止傾倒廢物及其他物質污染海洋的公約》 Management Regulations of the PRC on the Prevention and Control of Damage to the Marine Environment by Land-based Pollutants 《中華人民共和國防治陸源污染物污染損害海洋環境管理條例》	Strictly abided by and did not violate laws and regulations that have a significant impact on the Group regarding air and GHG emissions, discharges into water and land, and generation of hazardous and non-hazardous waste 嚴格遵守且無違反對本集團有重大影響的有關廢氣和溫室氣體排放、向水及土地排污、有害及無害廢棄物的產生的法律及規例

Aspect of ESG Reporting Guide ESG報告指引層面	Laws and regulations complied with by the Group that have a significant impact on the Group 本集團遵守對本集團有重大影響的法律及規例	Compliance status during the Year 於本年度的合規情況
Aspect A1: Emissions 層面A1：排放物	<p>Management on discharges into land and others related to land resources 向土地排污及其他與土地資源相關的管理</p> <p>Hazardous and non-hazardous waste generation and disposal 有害及無害廢棄物產生及處置</p> <p>Noise pollution emission 噪聲污染排放</p>	<p>Land Administration Law of the PRC 《中華人民共和國土地管理法》</p> <p>Water and Soil Conservation Law of the PRC 《中華人民共和國水土保持法》</p> <p>Soil Pollution Prevention and Control Law of the PRC 《中華人民共和國土壤污染防治法》</p> <p>Directory of National Hazardous Wastes 《國家危險廢物名錄》</p> <p>The Measures for the Administration of Permit for Operation of Dangerous Wastes 《危險廢物經營許可證管理辦法》</p> <p>Law of the PRC on the Prevention and Control of Environmental Pollution by Solid Waste 《中華人民共和國固體廢物污染環境防治法》</p> <p>Law of the PRC on Prevention and Control of Radioactive Pollution 《中華人民共和國放射性污染防治法》</p> <p>Regulation on the Safety Management of Radioactive Waste 《放射性廢物安全管理條例》</p> <p>Regulation on the Safety Management of Hazardous Chemicals 《危險化學品安全管理條例》</p> <p>Regulations on the Administration of Recovery and Disposal of Waste Electrical and Electronic Products 《廢棄電器電子產品回收處理管理條例》</p> <p>Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal 《控制危險廢物越境轉移及其處置巴塞爾公約》</p> <p>Law of the PRC on the Prevention and Control of Pollution from Noise 《中華人民共和國噪聲污染防治法》</p>

Strictly abided by and did not violate laws and regulations that have a significant impact on the Group regarding air and GHG emissions, discharges into water and land, and generation of hazardous and non-hazardous waste

嚴格遵守且無違反對本集團有重大影響的有關廢氣和溫室氣體排放、向水及土地排污、有害及無害廢棄物的產生的法律及規例

Aspect of ESG Reporting Guide ESG報告指引層面	Laws and regulations complied with by the Group that have a significant impact on the Group 本集團遵守對本集團有重大影響的法律及規例	Compliance status during the Year 於本年度的合規情況
B. Social Area B. 社會範疇		
Aspect B1: Employment 層面B1：僱傭	<p>General applicable laws and regulations 一般適用的法律及規例</p> <p>Labour Law of the PRC 《中華人民共和國勞動法》</p> <p>Labour Contract Law of the PRC 《中華人民共和國勞動合同法》</p> <p>Employment Promotion Law of the PRC 《中華人民共和國就業促進法》</p> <p>Social Insurance Law of the PRC 《中華人民共和國社會保險法》</p> <p>Labour Dispute Mediation and Arbitration Law of the PRC 《中華人民共和國勞動爭議調解仲裁法》</p> <p>Regulation on the Implementation of the Employment Contract Law of the PRC 《中華人民共和國勞動合同法實施條例》</p> <p>Mandatory Provident Fund Schemes Ordinance 《強制性公積金計劃條例》</p> <p>Employment Ordinance 《僱傭條例》</p> <p>Employees' Compensation Ordinance 《僱員補償條例》</p> <hr/> <p>Compensation and dismissal, recruitment and promotion, working hours and rest periods 薪酬及解僱、招聘及晉升、工作時數及假期</p> <p>Minimum Wage Ordinance 《最低工資條例》</p> <p>Regulation on Paid Annual Leave for Employees 《職工帶薪年休假條例》</p> <p>Measures for Public Holidays for National Annual Festival and Memorial Days 《全國年節及紀念日放假辦法》</p> <hr/> <p>Equal opportunity, diversity and anti-discrimination 平等機會、多元化及反歧視</p> <p>Law of the PRC on the Protection of Disabled Persons 《中華人民共和國殘疾人保障法》</p> <p>Law of the PRC on the Protection of Rights and Interests of Women 《中華人民共和國婦女權益保障法》</p> <p>Regulations on the Employment of the Disabled 《殘疾人就業條例》</p>	<p>Strictly abided by and did not violate laws and regulations that have a significant impact on the Group regarding compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare 嚴格遵守且無違反對本集團有重大影響的有關薪酬及解僱、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法律及規例</p>

Aspect of ESG Reporting Guide ESG報告指引層面	Laws and regulations complied with by the Group that have a significant impact on the Group 本集團遵守對本集團有重大影響的法律及規例		Compliance status during the Year 於本年度的合規情況
Aspect B2: Health and Safety 層面B2：健康與安全	Provide a safe working environment and protect employees from occupational hazards 提供安全工作環境及保障僱員避免職業性危害	Labour Law of the PRC 《中華人民共和國勞動法》 Fire Control Law of the PRC 《中華人民共和國消防法》 Production Safety Law of the PRC 《中華人民共和國安全生產法》 Law of the PRC on the Prevention and Treatment of Occupational Diseases 《中華人民共和國職業病防治法》 Emergency Response Law of the PRC 《中華人民共和國突發事件應對法》 Measures for the Administration of Contingency Plans for Work Safety Accidents 《生產安全事故應急預案管理辦法》 Regulation on Work-related Injury Insurances 《工傷保險條例》 Regulation on the Safety Management of Hazardous Chemicals 《危險化學品安全管理條例》 Regulations on the Reporting, Investigation and Disposition of Work Safety Accidents 《生產安全事故報告和調查處理條例》 Regulation on Labour Protection in Workplaces Involving Use of Toxic Substances 《使用有毒物品作業場所勞動保護條例》 Convention concerning Occupational Safety and Health and the Working Environment 《職業安全和衛生及工作環境公約》 Occupational Safety and Health Ordinance 《職業安全及健康條例》 Fire Safety (Commercial Premises) Ordinance 《消防安全(商業處所)條例》	Strictly abided by and did not violate laws and regulations that have a significant impact on the Group regarding the provision of a safe working environment and the protection of employees from occupational hazards 嚴格遵守且無違反對本集團有重大影響的有關提供安全工作環境及保障僱員避免職業性危害的法律及規例
Aspect B4: Labour Standards 層面B4：勞工準則	Prevention of child or forced labour 防止童工或強制勞工	Labour Law of the PRC 《中華人民共和國勞動法》 Law of the PRC on the Protection of Minors 《中華人民共和國未成年人保護法》 Provisions on the Prohibition of Using Child Labour 《禁止使用童工規定》 Convention Concerning the Prohibition and Immediate Action for the Elimination of the Worst Forms of Child Labour 《禁止和立即行動消除最惡劣形式的童工勞動公約》 Employment of Children Regulations 《僱用兒童規例》 Employment of Young Persons (Industry) Regulations 《僱用青年(工業)規例》	Strictly abided by and did not violate laws and regulations that have a significant impact on the Group regarding the prevention of child labour or forced labour 嚴格遵守且無違反對本集團有重大影響的有關防止童工或強制勞工的法律及規例

Aspect of ESG Reporting Guide ESG報告指引層面	Laws and regulations complied with by the Group that have a significant impact on the Group 本集團遵守對本集團有重大影響的法律及規例	Compliance status during the Year 於本年度的合規情況
Aspect B6: Product Responsibility 層面B6：產品責任	<p>Health, safety and privacy matters of products and services provided 所提供產品和服務的健康與安全及私隱事宜</p> <p>Standardisation Law of the PRC 《中華人民共和國標準化法》</p> <p>Product Quality Law of the PRC 《中華人民共和國產品質量法》</p> <p>Law of the PRC on Import and Export Commodity Inspection 《中華人民共和國進出口商品檢驗法》</p> <p>Law of the PRC on the Protection of Consumer Rights and Interests 《中華人民共和國消費者權益保護法》</p> <p>Property Management Services Ordinance 《物業管理服務條例》</p> <p>Personal Data (Privacy) Ordinance 《個人資料(私隱)條例》</p>	<p>Strictly abided by and did not violate laws and regulations that have a significant impact on the Group regarding the health, safety and privacy matters of products and services provided and the maintenance and protection of intellectual property rights; the Company's business did not involve advertising and product labeling activities, and the related laws and regulations have no significant impact on us 嚴格遵守且無違反對本集團有重大影響的有關所提供產品和服務的健康與安全、私隱事宜及維護和保障知識產權的法律及規例；公司業務不涉及廣告及產品標籤活動，與其相關的法律及規例亦對我們無重大影響</p>
Safeguard and protect intellectual property rights 維護和保障知識產權	<p>Patent Law of the PRC 《中華人民共和國專利法》</p> <p>Copyright Law of the PRC 《中華人民共和國著作權法》</p> <p>Regulation on the Implementation of the Trademark Law of the PRC 《中華人民共和國商標法實施條例》</p> <p>Rules for the Implementation of the Patent Law of the PRC 《中華人民共和國專利法實施細則》</p> <p>Enterprise Intellectual Property Management Standard 《企業知識產權管理規範》</p> <p>World Intellectual Property Organization Copyright Treaty 《世界知識產權組織版權條約》</p>	

Aspect of ESG Reporting Guide ESG報告指引層面	Laws and regulations complied with by the Group that have a significant impact on the Group 本集團遵守對本集團有重大影響的法律及規例		Compliance status during the Year 於本年度的合規情況
Aspect B7: Anti-corruption 層面B7：反貪污	Prevention of bribery, extortion, fraud and money laundering 防止賄賂、勒索、欺詐及洗黑錢	Criminal Law of the PRC 《中華人民共和國刑法》 Supervision Law of the PRC 《中華人民共和國監察法》 Company Law of the PRC 《中華人民共和國公司法》 Anti-Money Laundering Law of the PRC 《中華人民共和國反洗錢法》 Anti-Monopoly Law of the PRC 《中華人民共和國反壟斷法》 Anti-Unfair Competition Law of the PRC 《中華人民共和國反不正當競爭法》 The Bidding Law of the PRC 《中華人民共和國招標投標法》 Regulation on the Implementation of the Bidding Law of the PRC 《中華人民共和國招標投標法實施條例》 Prevention of Bribery Ordinance 《防止賄賂條例》 Competition Ordinance 《競爭條例》	Strictly abided by and did not violate laws and regulations that have a significant impact on the Group regarding the prevention of bribery, extortion, fraud and money laundering 嚴格遵守且無違反對本集團有重大影響的有關防止賄賂、勒索、欺詐及洗黑錢的法律及規例

Appendix II: Overview of Environmental, Social and Governance Key Performance Indicators

附錄二：環境、社會及管治關鍵績效指標概覽

ENVIRONMENTAL MANAGEMENT⁸

環境管理⁸

		2022	2021	2020
Use of Resources – Energy		資源使用－能源		
Offices		辦公室		
Electricity (MWh)	電力 (兆瓦時)	553.23	331.22	270.86
Gasoline (MWh)	汽油 (兆瓦時)	0	0.25	32.77
Power Plants		電站		
Electricity (MWh)	電力 (兆瓦時)	59,880.0	37,914.71	27,431.02
Natural gas (MWh)	天然氣 (兆瓦時)	0	20.55	43.39
Gasoline (MWh)	汽油 (兆瓦時)	2,907.11	5,730.11	1,182.53
Diesel (MWh)	柴油 (兆瓦時)	71.04	533.39	105.33
Offices and Power Plants		辦公室及電站		
Total consumption (MWh)	消耗總量 (兆瓦時)	63,411.38	44,530.23	29,065.9
Consumption intensity (MWh per GWh electricity generation volume)	消耗強度 (兆瓦時／吉瓦時發電量)	8.88	11.48	10.4
Use of Resources – Water		資源使用－水		
Offices⁹		辦公室⁹		
Water (Tons)	水 (噸)	1,522	756	700
Power Plants		電站		
Water (Tons)	水 (噸)	66,610	46,851	17,928
Offices and Power Plants		辦公室及電站		
Total water consumption (Tons)	耗水總量 (噸)	68,132	47,607	18,628
Water consumption intensity (Tons per GWh electricity generation volume)	耗水強度 (噸／吉瓦時發電量)	9.54	12.27	6.66

⁸ Environmental KPIs stated in this report are calculated with reference to “Appendix 2: Reporting Guidance on Environmental KPIs” of “How to Prepare an ESG Report” published by the Stock Exchange.
本報告中所披露的環境關鍵績效指標乃參照香港聯交所發佈的《如何準備環境、社會及管治報告》附錄二之《環境關鍵績效指標匯報指引》。

⁹ Water consumption in Hong Kong office is free of charge and there is no specific water consumption, so the water consumption of Hong Kong office is not calculated.
香港辦公室用水免費，無明確用水量，所以沒有計算香港辦公室的用水量。

		2022	2021	2020
Emissions	排放			
Greenhouse Gas Emissions¹⁰	溫室氣體排放¹⁰			
Total greenhouse gas emissions (tCO ₂ e)	溫室氣體排放總量 (噸二氧化碳當量)	35,197	25,316	17,240
Scope 1: Direct emissions (tCO ₂ e)	範圍1：直接排放 (噸二氧化碳當量)	729	1,980	335
Scope 2: Indirect emissions (tCO ₂ e)	範圍2：間接排放 (噸二氧化碳當量)	34,468	23,336	16,905
Emissions intensity (tCO ₂ e per GWh electricity generated)	排放強度 (噸二氧化碳當量 / 吉瓦時發電量)	4.93	6.53	6.17
Air Emissions¹¹	廢氣排放¹¹			
Sulphur oxide (kg)	硫氧化物 (公斤)	12.7	10.4	3.7
Nitrogen oxide (kg)	氮氧化物 (公斤)	425.4	2,818.3	477.5
Particulate matter (kg)	顆粒物 (公斤)	54.8	254.2	13.2
Wastewater	廢水			
Wastewater discharge (Tons)	廢水排放量 (噸)	57,044.6	31,587.0	2,153.4
Emission intensity (Tons per GWh electricity generated)	排放強度 (噸 / 吉瓦時發電量)	7.99	8.14	0.77
Solar Panels	太陽能電池板			
Solar panels (recycled) (Tons)	已回收太陽能電池板 (噸)	53.27	42.49	5.97
Hazardous Waste	有害廢棄物			
Waste circuit board (Tons)	廢線路板 (噸)	0.03	0	0
Waste oil (Tons)	廢油 (噸)	0	1.60	2.75
Total waste generated (Tons)	產生廢棄物總量 (噸)	0.03	1.60	2.75
Waste intensity (kg per GWh electricity generated)	產生廢棄物強度 (公斤 / 吉瓦時發電量)	0	0.41	0.98
Non-hazardous Waste	無害廢棄物			
Recyclable waste (Tons)	可回收廢棄物 (噸)	3.2	19.7	18.1
Non-recyclable waste (Tons)	不可回收廢棄物 (噸)	14.01	1.53	1.22
Total waste generated (Tons)	產生廢棄物總量 (噸)	17.21	21.23	19.32
Waste intensity (kg per GWh electricity generated)	產生廢棄物強度 (公斤 / 吉瓦時發電量)	2.41	5.47	6.91

¹⁰ The calculation scope of greenhouse gas emissions (Scope 1) includes natural gas combustion and fuel use of automobiles. The calculation scope of greenhouse gas emissions (Scope 2) includes the indirect emission caused in the production process through purchased electricity in Hong Kong and Mainland China. The calculation method and related emission coefficients of greenhouse gas emissions from electricity use in Mainland China and Hong Kong in 2022 respectively refer to the Notice on the Management of Greenhouse Gas Emissions Reporting for Power Generation Enterprises in 2023-2025 issued by the Ministry of Ecology and Environment of the PRC in 2023 and the Sustainability Report 2021 issued by HK Electric Investments.

溫室氣體排放 (範圍1) 的計算範圍包括天然氣燃燒及汽車的燃料使用。溫室氣體排放 (範圍2) 的計算範圍包括中國香港及內地外購電力在生產過程中造成的間接排放。2022年中國內地及香港的電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分別參考中國生態環境部2023年發佈的《關於做好2023—2025年發電行業企業溫室氣體排放報告管理有關工作的通知》及港燈電力投資發佈的《2021年可持續發展報告》。

¹¹ The calculation scope of air pollutant emissions includes natural gas combustion and fuel use of automobiles. 大氣污染物排放的計算範圍包括天然氣燃燒及汽車的燃料使用。

SOCIAL MANAGEMENT

社會管理

		2022	2021	2020
Labour Profile	勞工分佈			
Total workforce	僱員總數	1,011	752	436
By Gender	按性別			
Male	男性	806 (79.7%)	611 (81.2%)	365 (83.7%)
Female	女性	205 (20.3%)	141 (18.8%)	71 (16.3%)
By Region	按地區			
Mainland China	中國內地	970 (95.9%)	715 (95.1%)	409 (93.8%)
Hong Kong, China	中國香港	26 (2.6%)	24 (3.2%)	27 (6.2%)
Overseas	海外	15 (1.5%)	13 (1.7%)	–
By Employee Type	按僱傭類型			
Full-time	全職	1,011	752	436
Part-time	兼職	0	0	0
By Employee Contract	按僱傭合同			
Fixed	固定	1,011	752	436
Temporary	臨時	0	0	0
By Employee Category	按僱員類型			
Senior management personnel	高級管理人員	10 (1.0%)	8 (1.1%)	8 (1.9%)
Middle management personnel	中級管理人員	84 (8.3%)	56 (7.4%)	42 (9.6%)
General employee	普通僱員	917 (90.7%)	688 (91.5%)	386 (88.5%)
By Age Group	按年齡組別			
30 or below	30歲或以下	329 (32.5%)	225 (29.9%)	143 (32.8%)
31-40	31歲至40歲	505 (50.0%)	392 (52.1%)	222 (50.9%)
41 or above	41歲或以上	177 (17.5%)	135 (18.0%)	71 (16.3%)
By Education Background	按教育背景			
Doctor	博士	3 (0.3%)	3 (0.4%)	1 (0.2%)
Master	碩士	169 (16.7%)	119 (15.8%)	42 (9.6%)
Bachelor	學士	613 (60.6%)	316 (42.0%)	232 (53.2%)
Non-tertiary qualification and below	大專及以下學歷	226 (22.4%)	314 (41.8%)	161 (37.0%)
Employee turnover and turnover rate	流失僱員總數及僱員流失比率			
By Gender	按性別			
Male	男性	76 (9.4%)	52 (8.5%)	55 (12.6%)
Female	女性	10 (4.9%)	5 (3.5%)	14 (3.2%)

		2022	2021	2020
By Region	按地區			
Mainland China	中國內地	82 (8.5%)	53 (7.4%)	59 (13.5%)
Hong Kong, China	中國香港	1 (3.8%)	4 (16.7%)	10 (2.3%)
Overseas	海外	3 (20.0%)	–	–
By Age	按年齡			
30 or below	30歲或以下	20 (6.1%)	18 (8.0%)	22 (5.0%)
31-40	31歲至40歲	51 (10.1%)	30 (7.7%)	33 (7.6%)
41 or above	41歲或以上	15 (8.5%)	9 (6.7%)	14 (3.2%)
Total number of new hire employees and ratio		新入職僱員總數及比例		
By Gender	按性別			
Male	男性	272 (78.8%)	296 (79.4%)	74 (79.6%)
Female	女性	73 (21.2%)	77 (20.6%)	19 (20.4%)
By Region	按地區			
Mainland China	中國內地	335 (97.1%)	358 (96.0%)	80 (86.0%)
Hong Kong, China	中國香港	5 (1.4%)	2 (0.5%)	13 (14.0%)
Overseas	海外	5 (1.4%)	13 (3.5%)	–
By Age	按年齡			
30 or below	30歲或以下	160 (46.4%)	139 (37.3%)	27 (29.0%)
31-40	31歲至40歲	137 (39.7%)	185 (49.6%)	37 (39.8%)
41 or above	41歲或以上	48 (13.9%)	49 (13.1%)	29 (31.2%)
Return and retention rate after parental leave		育嬰假後的返崗及留任		
By Gender	按性別			
Male	男性	100%	100%	100%
Female	女性	100%	100%	100%
Total number of ethnic minority employees and ratio		少數民族僱員總數及比例		
By Gender	按性別			
Male	男性	79 (79.8%)	59 (77.6%)	32 (80.0%)
Female	女性	20 (20.2%)	17 (22.4%)	8 (20.0%)

		2022	2021	2020
Health and Safety		健康與安全		
Occupational Health and Safety Performance		職業健康與安全表現		
By Accident Category		按事故類型		
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
Work-related injury and fatalities		工傷及因工亡故情況		
Work-related injuries per 1,000 workers	每千名僱員的工傷數	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
Health examination		健康檢查情況		
Proportion of employees undergoing health examination	接受健康檢查的僱員比例	100%	100%	100%
Education on Occupational Health and Safety		職業健康與安全教育		
Health and safety training		健康與安全培訓情況		
Total person-times training	培訓總人次	3,081	752	380
Total training hours	培訓總時數	9,243	3,012	2,763
Percentage of employees trained	受訓僱員比例	100%	100%	76%

		2022	2021	2020
Development and Training 發展及培訓				
Percentage of employees trained 受訓僱員比例				
By Gender¹² 按性別 ¹²				
Male	男性	100%	96%	93%
Female	女性	100%	80%	66%
By Employee Category¹³ 按僱員類型 ¹³				
Senior management personnel	高級管理人員	100%	100%	60%
Middle management personnel	中級管理人員	100%	92%	66%
General employee	普通僱員	100%	96%	94%
Average training hours of employees (hours) 僱員受訓平均時數(小時)				
By Gender 按性別				
Male	男性	18	10	12
Female	女性	18	8	7
By Employee Category 按僱員類型				
Senior management personnel	高級管理人員	20	7	5
Middle management personnel	中級管理人員	14	3	5
General employee	普通僱員	19	2	12
Total number of employees trained 受訓僱員總人次				
By Gender 按性別				
Male	男性	14,331	6,605	6,031
Female	女性	3,583	467	153
By Employee Category 按僱員類型				
Senior management personnel	高級管理人員	204	107	39
Middle management personnel	中級管理人員	1,279	468	85
General employee	普通僱員	16,431	6,497	6,060

¹² The proportion of trained employees by gender is calculated by dividing the number of trained employees of each gender by the corresponding total number of employees.
按性別劃分的受訓僱員比例的計算方法為按性別劃分的僱員培訓人次除以相對應僱員總數。

¹³ The proportion of trained employees by employee type is calculated by dividing the number of trained employees of each employee type by the corresponding total number of employees.
按僱員類型劃分的受訓僱員比例的計算方法為按僱員類型劃分的僱員培訓人次除以相對應僱員總數。

		2022	2021	2020
Training expenses per employee (RMB)	僱員人均培訓開支 (人民幣元)	1,718	2,121	81
Supply Chain Management 供應鏈管理				
Number of suppliers	供應商數目			
By Region	按地區			
Mainland China	中國內地	666	480	370
Regions other than Mainland China	中國內地以外的其他地區	4	7	1
Community Investment 社區投資				
Total social investment (RMB)	社會投資總額 (人民幣元)	11,430,000	14,000,000	10,000

Appendix III: GRI and the Stock Exchange ESG Content Index

附錄三：GRI及聯交所ESG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 2022 to 31 December 2022 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2022年1月1日至2022年12月31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 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

GRI Indicator	ESG Reporting Guide	Description	Page/Remarks
GRI指標	報告指引	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 2022 Annual Report 二零二二年年報
2-3	–	Reporting period, frequency and contact point 報告期、報告頻率及聯繫人	P. 5, P. 111
2-4	–	Restatements of information 信息重述	No restatements of information 無信息重述
2-5	–	External assurance 外部鑒證	The Company will seek external assurance when appropriate 本公司將適時尋求外部認證
Activities and workers			
活動和工作			
2-6	B5.1	Activities, value chain and other business relationships 活動、價值鏈和其他業務關係	P. 7, P. 75
2-7	B1.1	Employees 僱員	P. 47, P. 49

GRI Indicator	ESG Reporting Guide	Description	Page/Remarks
GRI指標	報告指引	描述	頁碼／備註
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
Governance 管治			
2-9	–	Governance structure and composition 管治架構和組成	2022 Annual Report – Report of Corporate Governance 二零二二年年報－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	2022 Annual Report – Report of Corporate Governance 二零二二年年報－企業管治報告
2-11	–	Chair of the highest governance body 最高管治機構的主席	2022 Annual Report – Report of Corporate Governance 二零二二年年報－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	P. 14-15 2022 Annual Report – Report of Corporate Governance 二零二二年年報－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. 14
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. 14
2-15	–	Conflicts of interest 利益衝突	2022 Annual Report – Report of Corporate Governance 二零二二年年報－企業管治報告

GRI Indicator	ESG Reporting Guide	Description	Page/Remarks
GRI指標	報告指引	描述	頁碼／備註
2-16	–	Communication of critical concerns 重要關切問題的溝通	P. 56, P. 80-81
2-17	–	Collective knowledge of the highest governance body 最高管治機構的共同知識	2022 Annual Report – Report of Corporate Governance 二零二二年年報－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	2022 Annual Report – Report of Corporate Governance 二零二二年年報－企業管治報告
2-19	–	Remuneration policies 薪酬政策	2022 Annual Report – Report of Corporate Governance 二零二二年年報－企業管治報告
2-20	–	Process to determine remuneration 確定薪酬的程序	2022 Annual Report – Report of Corporate Governance 二零二二年年報－企業管治報告
2-21	–	Annual total compensation ratio ¹⁴ 年度總薪酬比率 ¹⁴	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 11.65; 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 0.68 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11.65；b.組織中收入最高個人的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）年度總薪酬增長百分比中位數的比率為0.68

¹⁴ 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).

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。

GRI Indicator	ESG Reporting Guide	Description	Page/Remarks
GRI指標	報告指引	描述	頁碼／備註
Strategy, policies and practices 戰略、政策和實踐			
2-22	–	Statement on sustainable development strategy 關於可持續發展戰略的聲明	P. 11-12
2-23	–	Policy commitments 政策承諾	P. 33-34, P. 56, P. 80-81
2-24	–	Embedding policy commitments 融合政策承諾	P. 33-34, P. 56, P. 80-81
2-25	–	Processes to remediate negative impacts 補救負面影響的程序	P. 56
2-26	–	Mechanisms for seeking advice and raising concerns 尋求建議和提出關切的機制	P. 80-81
2-27	–	Compliance with laws and regulations 遵守法律法規	P. 86-92
2-28	–	Membership of associations 協會的成員資格	A member of the Green Energy Ecosystem Organization 為綠色能源生態合作組織的成員
Stakeholder engagement 持份者參與			
2-29	–	Approach to stakeholder engagement 持份者參與的方法	P. 15-17
2-30	–	Collective bargaining agreements 集體談判協議	The Group did not sign any collective bargaining agreements with employees 本集團並未和僱員簽署集體談判協定

GRI 3: Material Topics			
GRI 3 : 實質性議題			
GRI Indicators	ESG Reporting Guide	Description	Page/remarks
GRI指標	ESG報告指引	說明	頁碼/備註
3-1	–	Process to determine material topics 確認實質性議題的過程	P. 15-17
3-2	–	List of material topics 實質性議題清單	P. 15-17
Material Topics			
實質性議題			
GRI 205: Anti-corruption 2016			
GRI 205 : 反腐敗2016			
3-3	B7、B7.2	Management approach and its components 管理方針及其要素	P. 80-81
205-2	B7.3	Communication and training on anti-corruption policies and procedures 反腐敗政策和程序的傳達及培訓	P. 80-81
205-3	B7.1	Confirmed incidents of corruption and actions taken 經確認的貪污事件和採取的行動	P. 81
GRI 308: Supplier environmental assessment 2016			
GRI 308 : 供應商環境評估2016			
3-3	B5、B5.4	Management approach and its components 管理方針及其要素	P. 75-78
308-1	B5.2、B5.3	New suppliers that were screened using environmental criteria 使用環境準則篩選的新供應商	P. 75-78

GRI 403: Occupational health and safety 2018			
GRI 403 : 職業健康與安全2018			
3-3	B2	Management approach and its components 管理方針及其要素	P. 57-63
403-5	B2.3	Worker training on occupational health and safety 工作者的職業健康安全培訓	P. 60-63
403-9	B2.1	Work-related injuries 工傷	P. 58
-	B2.2	Lost days due to work injury 因工傷損失工作日數	P. 58
GRI 404: Training and education 2016			
GRI 404 : 培訓與教育2016			
3-3	B3	Management approach and its components 管理方針及其要素	P. 50-51
404-1	B3.2	Average hours of training per year per employee 每名僱員每年接受訓練的平均時數	P. 98
-	B3.1	Percentage of employees trained by gender and employee category 按性別及僱員類別劃分的受訓僱員百分比	P. 98
GRI 414: Supplier social assessment 2016			
GRI 414 : 供應商社會評估2016			
3-3	B5	Management approach and its components 管理方針及其要素	P. 75-78
414-1	B5.2、B5.3	New suppliers that were screened using social criteria 使用社會標準篩選的新供應商	P. 75-78
GRI 418: Customer privacy 2016			
GRI 418 : 客戶隱私2016			
3-3	B6	Management approach and its components 管理方針及其要素	P. 70-73
418-1	B6.2、B6.5	Substantiated complaints concerning breaches of customer privacy and loss 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 relevant complaints 於本年度，本集團並無接獲相關投訴

Clean Energy Opportunities			
清潔能源機遇			
3-3	–	Management approach and its components 管理方針及其要素	P. 21-23
N/A 不適用	–	Key initiatives and progress 主要措施及進展	P. 21-23
Employee Communication			
員工溝通			
3-3	–	Management approach and its components 管理方針及其要素	P. 56
N/A 不適用	–	Key initiatives and progress 主要措施及進展	P. 56
Other Topics			
其他議題			
GRI 201: Economic performance 2016			
GRI 201 : 經濟績效2016			
3-3	A4	Management approach and its components 管理方針及其要素	P. 24-26
201-1	B8.2	Direct economic value generated and distributed 直接產生和分配的經濟價值	P. 82-85
201-2	A4.1	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. 24-26
GRI 203: Indirect economic impacts 2016			
GRI 203 : 間接經濟影響2016			
3-3	B8	Management approach and its components 管理方針及其要素	P. 82-85
203-2	B8.1	Significant indirect economic impacts 重大間接經濟影響	P. 82-85

GRI 301: Materials 2016			
GRI 301 : 物料2016			
3-3	A2	Management approach and its components 管理方針及其要素	P. 33-34
301-1	A2.5	Materials used by weight or volume 所用物料的重量或體積	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
GRI 302: Energy 2016			
GRI 302 : 能源2016			
3-3	A2	Management approach and its components 管理方針及其要素	P. 35-37
302-1	A2.1	Energy consumption within the organization 組織內部的能源消耗量	P. 38-39
302-3	A2.1	Energy intensity 能源強度	P. 38-39
302-4	A2.3	Reduction of energy consumption 降低能源消耗量	P. 35-37
GRI 303: Water and effluents 2018			
GRI 303 : 水資源和污水2018			
3-3	A2	Management approach and its components 管理方針及其要素	P. 35-37
303-1	A2.4	Interactions with water as a shared resource 組織與水作為共有資源的相互影響	P. 35-36, P. 40-42
303-2	-	Management of water discharge-related impacts 管理與排水相關的影響	P. 41-42
303-4	-	Water discharge 排水	P. 41
303-5	A2.2	Water consumption 耗水	P. 40

GRI 304: Biodiversity 2016			
GRI 304 : 生物多樣性2016			
3-3	A3	Management approach and its components 管理方針及其要素	P. 43-45
304-2	A3.1	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. 22-28, P. 43-45
GRI 305: Emissions 2016			
GRI 305 : 排放2016			
3-3	A1、A1.5	Management approach and its components 管理方針及其要素	P. 33-34, P. 40-41
305-1	A1.2	Direct (Scope 1) GHG emissions 直接(範圍1)溫室氣體排放	P. 39
305-2	A1.2	Energy indirect (Scope 2) GHG emissions 能源間接(範圍2)溫室氣體排放	P. 39
305-4	A1.2	GHG emissions intensity 溫室氣體排放密度	P. 39
305-7	A1.1	Nitrogen oxides (NO _x), sulfur oxides (SO _x), and other significant air emissions 氮氧化物、硫氧化物和其他重大氣體排放	P. 41
GRI 306: Waste 2020			
GRI 306 : 廢棄物2020			
3-3	A1	Management approach and its components 管理方針及其要素	P. 42-43
306-3	A1.3、1.4	Waste generated 產生的廢棄物	P. 43
306-5	A1.6	Waste directed to disposal 進入處置的廢棄物	P. 43
GRI 401: Employment 2016			
GRI 401 : 僱傭2016			
3-3	B1	Management approach and its components 管理方針及其要素	P. 48-49
401-1	B1.2	New employee hires and employee turnover 新進僱員僱傭率和僱員流失率	P. 49
GRI 405: Diversity and equal opportunity 2016			
GRI 405 : 多元化與平等機會2016			
3-3	B1	Management approach and its components 管理方針及其要素	P. 47-49
405-1	B1.1	Diversity of governance bodies and employees 管治架構與僱員的多元化	P. 47

GRI 408: Child labour 2016			
GRI 408 : 童工2016			
3-3	B4	Management approach and its components 管理方針及其要素	P. 50
408-1	B4.1、B4.2	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 using 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
GRI 409: Forced or compulsory labour 2016			
GRI 409 : 強迫或強制勞動2016			
3-3	B4	Management approach and its components 管理方針及其要素	P. 50
409-1	B4.1、B4.2	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 risks of using forced 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 416: Customer health and safety 2016			
GRI 416 : 客戶健康與安全2016			
3-3	B6	Management approach and its components 管理方針及其要素	P. 65-67
416-2	B6	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	The Group is not involved in 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

Product Responsibility 產品責任			
3-3	B6	Management approach and its components 管理方針及其要素	P. 65-69, P. 74-75
-	B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons 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	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
-	B6.3	Description of practices relating to observing and protecting intellectual property rights 描述與維護及保障知識產權有關的慣例	P. 74-75
-	B6.4	Description of quality assurance process and recall procedures 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

Feedback 意見反饋

Dear reader,

Thank you for taking the time to read the 2022 ESG 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.

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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2022年ESG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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Report Team
April 2023

報告編寫組
2023年4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. 這份報告反映本公司對環境及社會之影響。	
3. I am satisfied with the ESG performance of the Company. 我對本公司的ESG實踐成效感到滿意。	
4. I am satisfied with the disclosure level of this report. 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。	



京能集团

北京能源國際控股有限公司

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