



China Power International Development Limited

中國電力國際發展有限公司

(incorporated in Hong Kong with limited liability)

(Stock Code :2380)

2024

Sustainability Report



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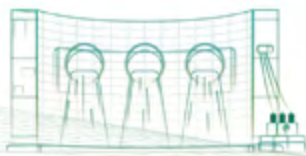
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About This Report

Introduction

This report issued by China Power International Development Limited discloses and presents its performance in terms of environmental, social and corporate governance (“ESG”).

In this report, “China Power”, the “Company” and “We” refer to China Power International Development Limited; and the “Group” refers to, collectively, the Company and its subsidiaries.

Timeframe

Unless otherwise specified, this report covers the period from 1 January 2024 to 31 December 2024. To ensure the completeness of this report, the timeframe of some information has been extended backwards or forwards.

Reporting Scope

The quantitative data in this report covers China Power and its subsidiaries within the scope of the consolidated financial statements during the same period, while the qualitative information covers China Power and its subsidiaries within the scope of the consolidated financial statements during the same period (excluding the Entrusted Assets, unless otherwise specified), as well as the joint ventures and associates that are recorded as interests in joint ventures and associates, respectively, in the consolidated financial statements of the Group (collectively, the “Assets”). Contents with other scopes differed from this have been explained in this report.

This report covers (i) any Assets that have been in continuing operation in 2024; (ii) any Assets that have been acquired or established during the year, commencing from the completion date/date of establishment of the relevant acquisition/Assets up to 31 December 2024; and (iii) any Assets¹ that have been disposed of in its entirety during the year, commencing from 1 January 2024 up to the completion date of the relevant disposal.

Data Sources

The sources of data for all information in this report include public data from government departments, official documents of the Company, public disclosure documents and relevant internal summary statistics. The financial data quoted in the report is derived from the audited financial information contained in the 2024 Annual Report of the Company. All non-calculated data for the year 2024 in this report have been collected, reported, and summarized by the various departments of the Company and its subsidiaries. The monetary amounts involved in this report are denominated in RMB, the lawful currency of the PRC, unless otherwise stated.

¹ For the year 2024, the disclosure of disposed assets follows the principle that period data, such as total waste gas emissions, will be included in the statistics, whereas point-in-time data, like the number of employees, will be excluded from the statistics.

Basis of Preparation

This report has been prepared in accordance with *Appendix C2 “Environmental, Social and Governance Reporting Code”* (the “SEHK ESG Code”) of the Listing Rules and follows the reporting principles of materiality, quantitative, balance and consistency of the SEHK ESG Code.

- **Materiality:** This report identifies the extent to which ESG-related matters affect various stakeholders by conducting a materiality issue assessment and focuses on responding to and disclosing issues with a higher degree of materiality.
- **Quantitative:** Through the establishment of an ESG indicator collection tool covering the headquarters and subsidiaries, ESG KPIs are presented in a measurable manner as far as practicable. The basis for the calculation of quantitative values and the caliber of statistics are also disclosed in this report.
- **Balance:** The contents of this report are derived from the internal management documents of the Company and its subsidiaries, statistics and publicly disclosed information, disclosing both positive and negative indicators, reflecting the objective facts and presenting the performance of China Power in terms of ESG.
- **Consistency:** Unless otherwise specified, this report adopts the statistical method of disclosure consistent with the reports of previous years, and if the caliber of the indicator statistics changes, it will be annotated in the report.

This report is prepared with relevant reference to *the Global Reporting Initiative’s (GRI) Sustainability Reporting Standards*, the *SASAC’s Guidance on Central Enterprises Fulfilling Social Responsibility to a High Standard in the New Era*, *Notice On the Forwarding of Study on ESG Specialized Report Compilation for Listed Companies Controlled by Central Enterprises*, as well as *Sustainability Disclosure Standards of IFRS S2 – Climate-related Disclosure*, issued by the International Sustainability Standards Board (ISSB) and other relevant requirements.

Date of Approval of the Report

This report was confirmed by the Company’s Strategic and Sustainable Development Committee and approved and adopted by the Board in March 2024.

Release of the Report

This report is accessible in simplified Chinese, traditional Chinese, and English, all available in electronic format. It can be obtained or viewed on the Hong Kong Stock Exchange’s website (www.hkexnews.hk) or the Company’s website (www.chinapower.hk).

Response from Readers

In order to continuously improve the Company’s ESG management level, enhance the quality of ESG information disclosure, and promote the practice of ESG development philosophy, we hereby seek readers’ opinions on this report (please refer to Appendix III “Readers’ Comments Form” for details), and invite readers to feedback their opinions to the Company’s email address (ir@chinapower.hk).



Message from the Chairman

In 2024, China Power celebrated its 20th anniversary since establishment and listing, marking a significant milestone for the Company as it advanced its sustainability philosophy and enhanced the execution of its New Development Strategy. In the context of profound transformations within the global energy sector and in alignment with the Dual Carbon goals, we remain committed to our core principles of Green Empowerment, Smart Innovation, and Shared Success. Our focus is on fostering development through a low-carbon transition and ongoing innovation, as we aim to serve as a leading example in the global energy revolution.

Commitment to green development, and innovation for a sustainable future

In response to the challenges posed by global climate change, China Power is committed to optimizing its energy structure, fostering the development of high-quality productive forces, and establishing a power system driven by renewable energy. The objective is to further lower energy costs for society as a whole. By the end of 2024, the Group's clean energy consolidated installed capacity reached 80.12%, reflecting an increase of 4.73 percentage points compared to the previous year. The contributions of clean energy² to revenue and net profit accounting for 59.5% and 82.2% respectively demonstrated strong momentum in the Company's green and low-carbon transformation.

We followed the guidance of technological innovation, concentrating on essential technologies for new power systems and intelligent operation and maintenance. By enhancing strategic and forward-looking research, establishing demonstration zones for emerging industries, and facilitating the application of numerous cutting-edge technologies, we aimed to improve both ecological and economic benefits. We expedited the development of intelligent energy, taking the initiative to create demonstration sites for integrated PSDF (photovoltaic, storage, direct current, and flexible) systems. We promoted green power transportation solutions, with energy-transport integration demonstration projects implemented across various regions. We established academician and expert workstations to focus on breakthroughs in key geothermal technologies. Furthermore, we advanced innovative applications of virtual power plants, which have been included in provincial-level demonstration project lists. In 2024, the Company showcased its technical expertise and capabilities in industrial transformation related to the safety of electrochemical energy storage. The establishment of a key laboratory under the Ministry of Emergency Management, spearheaded by China Power, was approved, fostering innovation and advancement in fire safety and emergency rescue within the electrochemical energy sector. This initiative contributed to the modernization of emergency management systems and enhanced capabilities in the field.

We pursued innovative green financing and broadened our financing channels and methods to facilitate the high-quality, green, and low-carbon development of the industry. In 2024, the Company issued green medium-term notes (carbon-neutral bonds) totaling RMB 1 billion, executed China's inaugural CCER development-linked bond, which raised RMB 2 billion, and launched the country's first 10-year green panda bond worth RMB 1.5 billion. By optimizing capital allocation to lower project development costs, we integrated green and low-carbon principles into our transformation and development, establishing exemplary cases for carbon finance in China.

We emphasized the importance of creating value through green energy, focusing on unlocking the potential of environmental rights. In 2024, the Shandong Energy Peninsula South Offshore Windfarm Project marked a significant milestone by completing the nation's first CCER registration. Furthermore, the A and S wind farms, managed by Kazakhstan Energy Investment (an entrusted company of China Power), successfully obtained International Renewable Energy Certificate (I-REC) registration and certification. These achievements in carbon reduction have been transformed into economic benefits, fully realizing the economic potential of green energy and contributing to the sustainable and long-term growth of China's green power and carbon markets.

Strengthening governance capabilities, and building a solid foundation for high-quality development

Recognizing that effective governance is essential for the Company's high-quality development, we have intensified our strategic guidance to invigorate the enterprise through comprehensive reforms and enhancements. This approach aims to identify pathways for sustainable growth and generate increased value for shareholders and other stakeholders.

We have established a comprehensive and robust governance system for ESG by integrating innovative development philosophies with ESG principles. Our top-level ESG design has been optimized, leading to the release of a strategic model that clarifies our ESG goals and pathways. Additionally, we have implemented a 1+N institutional framework to enhance the effectiveness of our ESG management. Recognizing the importance of building our ESG talent pool, we have created a regular training platform. Through an ESG performance incentive mechanism, we aim to motivate employees and encourage innovation in ESG initiatives.

We are committed to upholding business ethics and fostering a sound governance environment, both internally and externally, while promoting compliance operations and steady growth. Furthermore, we continuously enhance the effectiveness of our corporate governance, strengthen communication with stakeholders, and comprehensively identify and address ESG-related risks. By integrating ESG principles into our operations, we have established a key tool for ensuring stable business operations and achieving sustainable development.

In 2024, China Power garnered significant recognition from various sectors for its exemplary ESG governance initiatives. The Company was included in the 20 Cases of Private Sector's Sustainable Development in China for 20 Years Collection launched by the United Nations Global Compact (UNGC) and acknowledged by the China Association of Listed Companies for its Outstanding Practices in Sustainable Development of Listed Companies. Furthermore, it received several prestigious accolades, including the Outstanding ESG Rating Award at the 7th Hong Kong ESG Reporting Awards (HERA), the ESG Action Breakthrough Pioneer title at the 2024 Green Development Annual Tribute, and the Excellence in High-Quality Development of Listed Companies award at the 14th China Securities Golden Bauhinia Awards, among others.

Fulfilling social responsibilities to promote a harmonious and better society

China Power views its long-term responsibility to society as fundamental to its existence. By adopting a people-oriented approach to talent management and embracing a philosophy that prioritizes employee care and potential, we have cultivated an inclusive and trusting work environment. We have enhanced our compensation and benefits system, developed diverse incentive mechanisms, and innovated methods for talent development, ensuring robust talent reserves and effective team building. In 2024, we observed continued improvements in employee satisfaction and a heightened sense of belonging, which have become vital drivers of the Company's long-term growth.

In response to China's rural revitalization strategy, we contributed to local economic development through tangible actions. In 2024, the Company merged rural revitalization efforts with green development initiatives, focusing on zero-carbon digital rural demonstration projects. By utilizing integrated intelligent energy solutions across the entire rural industry, we established a scalable and replicable model for revitalization. Our distinctive projects, such as upgrading smart streetlights and constructing cultural squares, have infused new vitality into the modernization of rural infrastructure.

We recognize our responsibility to give back to society and promote public welfare. Our active engagement in various social initiatives, including education and environmental protection, reflects this commitment. In 2024, our charity brand, Yingshanhong, continued to broaden its impact, with total donations surpassing RMB 600,000. This funding has provided financial assistance to 954 underprivileged students, illuminating their educational paths. Additionally, through investments in clean energy projects, we have contributed to the optimization of energy structures and economic development in regions participating in the Belt and Road Initiative. Our practical efforts, such as talent training and school construction, have significantly bolstered energy security and sustainable development in these areas.

We embraced the principles of sustainable development, placing significant emphasis on the impact of our projects on biodiversity. In the implementation of the floating photovoltaic project in Sarawak, Malaysia (an entrusted company of the China Power), we have undertaken measures such as meticulous site selection, optimized layout, reduction of light pollution, and preservation of water quality to ensure the protection of biodiversity. At the same time, at the Botero Photovoltaic Power Plant in Mexico (an entrusted company of China Power), we have cooperated with professional forces to carry out burrowing frog conservation activities, optimize local environmental conditions, and successfully promote the significant growth of endangered populations, creating a model case of harmonious coexistence between species protection and photovoltaic power plants.

Vast and limitless, we navigate uncharted waters; with our sails fully unfurled, we embrace the wind. As we confront the opportunities and challenges of this new developmental phase, China Power is committed to realizing its vision of becoming a world-class provider of green and low-carbon energy. We will uphold our mission to enhance lives through low-carbon initiatives and strengthen the construction of our ESG framework. Our focus will be on accelerating technological innovation and green transformation, leveraging digital intelligence to support our low-carbon development, and exploring new sustainable development models within the energy sector. This approach will ensure that all stakeholders can partake in the benefits of our high-quality and sustainable growth. We eagerly anticipate collaborating with all parties to create a remarkable future together!

HE Xi

China Power International Development Limited
Chairman of the Board

² Clean energy covers hydropower, wind power, photovoltaic power, natural gas power, environmental power generation and energy storage.

About China Power

Company Profile

China Power was incorporated in Hong Kong with limited liability under the Hong Kong Companies Ordinance on 24 March 2004 and is a core subsidiary of SPIC, which is an integrated energy group that simultaneously owns thermal power, hydropower, nuclear power and renewable energy resources in the PRC.

The Company was listed on the Main Board of the Hong Kong Stock Exchange on 15 October 2004 with the stock code 2380. From the beginning of solely engaging in generation and electricity sales of coal-fired power, the Company has expanded its business into the areas of, among others, hydropower, wind power, photovoltaic power, natural gas power, environmental power, energy storage, green power transportation and integrated intelligent energy services through continuous development. Various business segments have been kept growing along with the constant expansion of the Group.

As of 31 December 2024,



the Group's total consolidated installed capacity reached

49,390.9 MW



of which the consolidated installed capacity of clean energy reached

39,570.9 MW

Proportion of consolidated installed capacity of clean energy reached

80.12%

Corporate Culture

Vision

The World's Leading Green and Low-carbon Energy Provider

Purpose and Mission

Lower Carbon Empower Better Life

Core Philosophy

Green-empowerment, Intelligent Innovation and Mutual Achievement

Business Segments

- Photovoltaic Power
- Wind Power
- Hydropower
- Clean Coal-fired Power
- Natural Gas Power
- Environmental Power

- Integrated Intelligent Energy
- Energy Storage
- Green Power Transportation
- Construction of Low-carbon, and Zero-carbon Beautiful Countryside
- Zero-carbon Power Plants



Power Supply

Energy Services

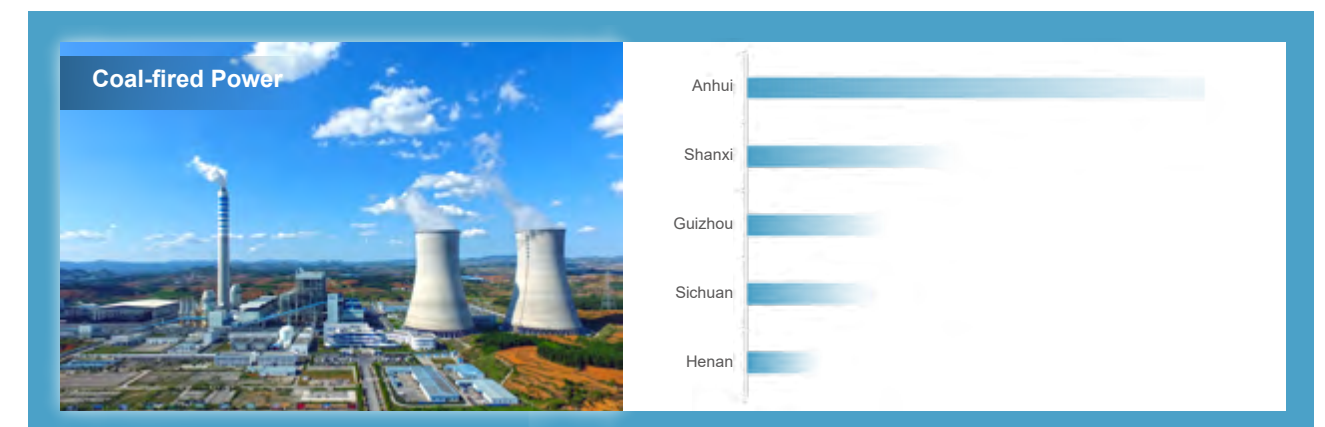
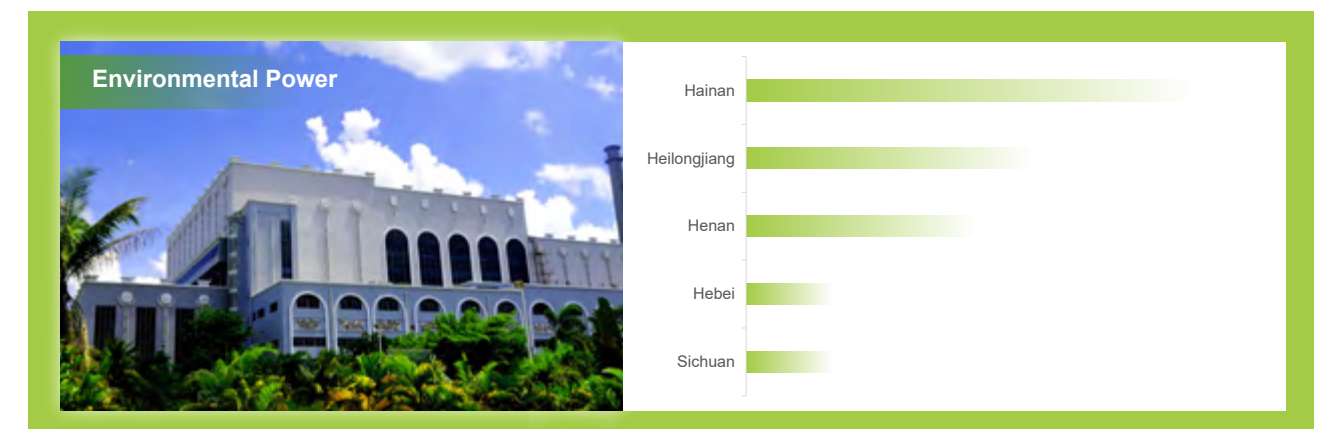
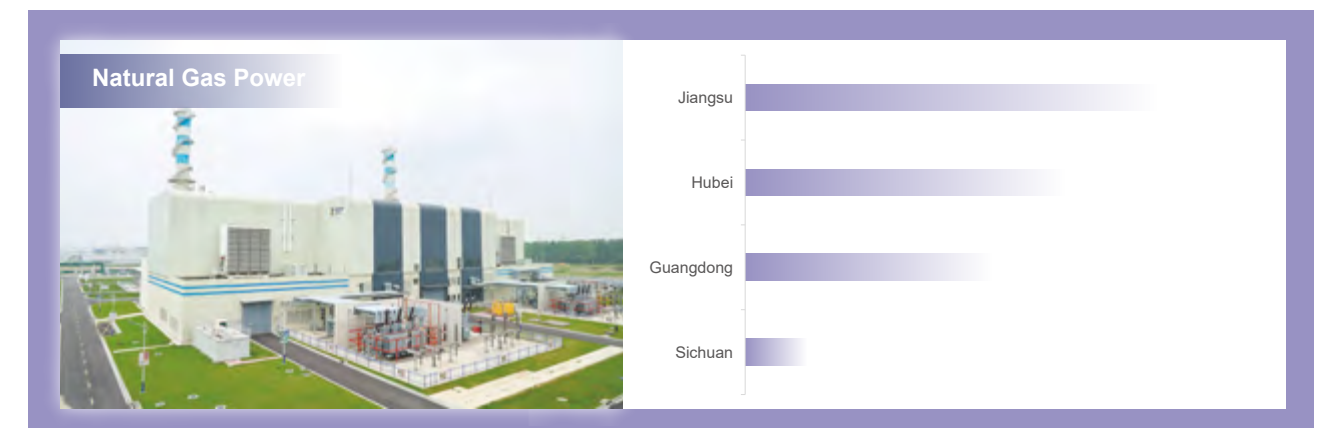
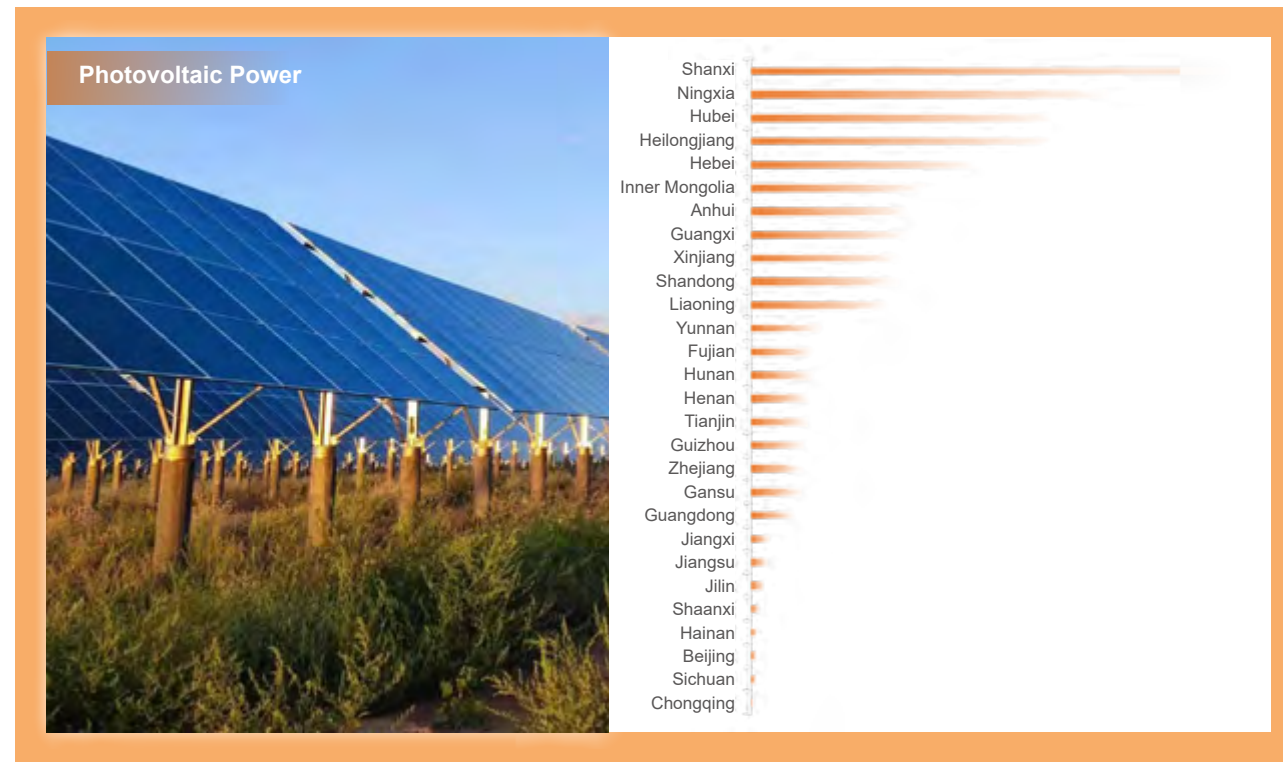
Industries Synergy



- Nuclear Power Inspection and Maintenance
- Power Plant Services
- Power Generation By-products
- Electricity Sales and Distribution
- Carbon Trading Services
- Investment Holding

Business Distribution

Power plants wholly-owned and/or controlled by the Group as of the end of 2024 are presented by region as below:



2024 Performance Highlights

Business Performance

Total assets (RMB'000)	2024	340,455,547	11.33%	↑
	2023	305,806,779		
Revenue (RMB'000)	2024	54,212,792	22.48%	↑
	2023	44,261,767		
Net profit (RMB'000)	2024	6,539,890	44.24%	↑
	2023	4,533,955		
Consolidated installed capacity (MW)	2024	49,390.9	9.71%	↑
	2023	45,018.8		
Consolidated installed capacity of clean energy (MW)	2024	39,570.9	16.59%	↑
	2023	33,938.8		
Total electricity sales (MWh)	2024	127,959,080	23.94%	↑
	2023	103,239,505		

Governance Performance

Number of litigation cases regarding corrupt practices (case)	2024	0	-	
	2023	0		
Total number of anti-corruption trainings conducted (time)	2024	565	11.88%	↑
	2023	505		

Environmental Performance

Clean energy power generation (MWh)	2024	73,752,633	49.11%	↑
	2023	49,460,300		
Proportion of consolidated installed capacity of clean energy (%)	2024	80.12	4.73 percentage points	↑
	2023	75.39		
Equivalent CO ₂ emissions reduction (ton)	2024	45,052,700	36.82%	↑
	2023	32,928,961		
Thermal power net coal consumption rate (g/kWh)	2024	291.99	-0.21%	↓
	2023	292.59		
Density of SO ₂ emissions (g/kWh)	2024	0.03	-25.00%	↓
	2023	0.04		
Density of NO _x emissions (g/kWh)	2024	0.08	-11.11%	↓
	2023	0.09		
Density of flue gas and dust emissions (g/kWh)	2024	0.004	-20.00%	↓
	2023	0.005		
Density of greenhouse gas emissions (g/kWh)	2024	378.02	-17.18%	↓
	2023	456.42		
Sales of carbon emission allowances (tCO ₂ e)	2024	2,333,105	4.15%	↑
	2023	2,240,224		

Social Performance				
Number of service-related complaints received (case)	2024	0	-	
	2023	0		
Customer satisfaction (%)	2024	100	-	
	2023	100		
R&D expenses (RMB'000)	2024	352,424	15.04%	
	2023	306,351		
Patents newly authorized in the year (patent)	2024	293	47.98%	
	2023	198		
Total hours of employee training (hour)	2024	1,202,518	24.49%	
	2023	965,950		
Total investment in employee training (RMB'000)	2024	101,898.2	7.80%	
	2023	94,523.5		
Overall employees turnover rate (%)	2024	3.13	1.63 percentage points	
	2023	4.76		
Total charity donation (RMB)	2024	4,356,400	38.62%	
	2023	3,142,800		

New Key Performance in 2024

Indicator	Unit	2024
Governance performance		
Total number of business ethics training for contractors	time	5,924
Total hours of business ethics training for contractors	hour	2,966
Total participants in business ethics training for contractors	person-time	29,828
Total number of contractors covered by business ethics training	contractor	4,284
Investment in digital transformation	RMB'000	357,656
Environmental performance		
Investment in green and low-carbon transformation	RMB'000	17,826,606.1
Investment in response to climate-related risks and opportunities	RMB'000	39,408,819.3
Credit line of green loans	RMB'000	206,637,724.6
Total amount of new green loans	RMB'000	38,223,758.6
Total amount of existing green loans	RMB'000	122,812,519.5
Total amount of registered carbon finance bonds	RMB'000	900,000
Total amount of carbon finance products	RMB'000	4,121,000
Investment in hazardous waste disposal	RMB'000	47,455.8
Social performance		
Expense in supporting industry associations	RMB'000	550
Number of Employees from internal recruitment	person	202
Investment in work safety	RMB'000	637,830
Number of subsidiaries with the certification of ISO occupational health and safety management system	subsidiary	60
Administrative staff training coverage	%	100
Production and technology staff training coverage	%	100
Average training hours per administrative staff	hour	61
Average training hours per production and technology staff	hour	89
Investment in rural revitalization	RMB'000	473,830

2024 ESG Milestones and Innovation Achievements

Jan China Power and Lianyungang government signed a comprehensive strategic cooperation agreement.



Both parties have established a comprehensive strategic partnership to advance multiple fields, including new energy +, hydrogen energy industry, and integrated intelligent energy +, working together to promote the sustainable and healthy development of new energy projects for both sides.

Jun China Power has officially become a member of the United Nations Global Compact (UNGC).



Upon UNGC review, China Power became one of its members.

Mar China Power held the kick-off meeting for the Research on the Social Value Evaluation System for Central SOEs and took the lead in managing the subtopic research.



The kick-off meeting was held at China Power which took the lead in the subtopic research in governance, exploring methods for the monetization of the social value of central SOEs, and providing important references for the construction of ESG evaluation system for modern corporate system with distinctive Chinese features.

Jun China Power successfully issued the country's first ten-year green panda bond.



China Power issued the second tranche of its 2024 green medium-term panda notes totaling RMB 1.5 billion, marking the successful launch of the nation's first 10-year green panda bond. The issuance rate set a new historical low for green bonds of the same maturity issued nationwide.

Apr Xinyuan Taili has established an Academician and Expert Workstation for research on technologies for geothermal development and utilization.



By signing agreement with an academician from the Chinese Academy of Sciences, Xinyuan Taili established an Academician and Expert Workstation aimed for accelerating technological innovation and the application of achievements in geothermal energy.

Jul China Power participated in the Hong Kong Green and Sustainable Finance Development Forum and received the highest ESG rating in the industry.



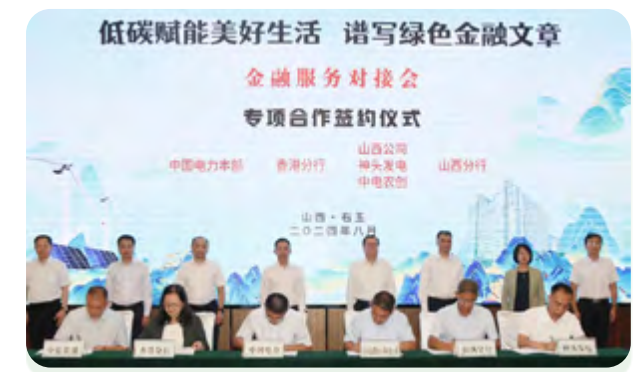
China Power received the CCXGF highest ESG industry rating of AA and unveiled its ESG strategy during the forum.

May China Power won the Best Hedging and Risk Solutions award from The Asset magazine.



The Domestic RMB Loan + Cross-Currency Interest Rate Swap refinancing solution customized by China Power for São Simão Hydropower won the Best Hedging and Risk Solutions award.

Aug China Power signed a special cooperation agreement Lower Carbon Empower Better Life, Writing a New Chapter in Green Finance with the Agricultural Bank of China.



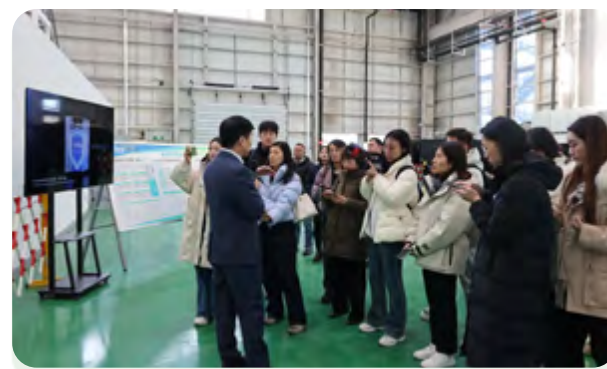
China Power and Agricultural Bank of China held a finance connection conference where the signing ceremony for the special cooperation agreement was included.

Sept Xinyuan Smart Storage's Data-Driven Unmanned Active Safety Energy Storage Power Station Intelligent Operation Centralized Control System passed the evaluation.



This solution passed the technology evaluation organized by the Chinese Society for Electrical Engineering (CSEE), further enhancing the safety and dispatch reliability of energy storage power stations.

Dec Xinyuan Smart Storage become a key company featured at the large-scale thematic interview event New Quality Productive Forces in Beijing.



14 media outlets including Xinhua News Agency and Beijing Daily delved into the production frontlines of Xinyuan Smart Storage, highlighting cutting-edge advancements in energy storage technologies.

Oct China Power joined the National Power-Energy Integration Industry-University-Research (IUR) Alliance as a founding member.



The 2024 National Conference on Technological Innovation and Development of Transportation-Energy Integration co-hosted by China Power promoted in-depth exchanges on the integration of transportation and energy through main forums and sub-forums.

Dec China Power participated in the roundtable dialogue at the 14th Hong Kong International Finance Forum.



At the forum, China Power presented its practices in recent years on using ESG as a management tool to drive high-quality and green development.

Nov The Joint Innovation Key Laboratory for Electrochemical Energy Fire Safety under the Ministry of Emergency Management had its launch ceremony held.



The Joint Innovation Key Laboratory for Electrochemical Energy Fire Safety under the Ministry of Emergency Management was officially launched in Fangshan Park, Zhongguancun, Beijing and had its first management committee set up.

Nov China Power was included in the 20 Cases of Private Sector's Sustainable Development in China for 20 Years Collection of United Nations Global Compact (UNGC).



The sustainable development practice case of China Power, titled CCER-linked Green Bond to Encourage Renewable Energy Transition, was selected. China Power was invited to the global roadshow.

Accolades and Awards



Outstanding ESG Rating Award

The 7th Hong Kong ESG Reporting Awards (HERA)



ESG Annual Action Breakthrough Pioneer title at the 2024 Green Development Annual Tribute

Phoenix Satellite Television, Rocky Mountain Institute (RMI), and Institute for Global Environmental Strategies (IGES)



Excellence in High-Quality Development of Listed Companies Award and Excellence in Investor Relations Management of Listed Companies 2024

China Securities Golden Bauhinia Awards



Integration of Civilizations Award, and Popularity Awards at the Sixth Belt and Road Initiative Short Video Competition

SASAC

Award for the Most Promising Listed Company in New Energy, 2024 Golden Hong Kong Stock Award, and Best IR Team Award

National Business Daily, Zhitong Finance

Typical Achievements in Corporate Culture in the Power Industry

Application Cases of Corporate Brand Innovation Practices in the Power Industry

China Electricity Council (CEC)

2024 Energy Storage Rising Star Enterprise Award

The 12th Energy Storage International Conference and Expo (ESIE)



National Workers' Pioneer Team

All-China Federation of Trade Unions

All-China Federation of Trade Unions

China Electricity Council (CEC)

China Power Outstanding Engineering Award

China Electric Power Construction Association (CEPCA)

One of China's First Pilot Projects for ESG Evaluation in Power Engineering

China Electric Power Construction Association (CEPCA)

Feature Sustainable Development Management

China Power is committed to putting sustainable development in life and placing great importance on Environmental, Social, and Governance (ESG) governance by improving its sustainable development system and enhancing its ESG governance capabilities and performance. We engage with various stakeholders to discuss the path to sustainable development, promoting the harmonious integration of our long-term growth, ecological well-being, and social sharing.

Governance for Sustainable Development

A robust and effective governance framework is essential for fostering sustainable corporate growth and promoting the advancement of ESG initiatives. We have implemented a robust three-tier ESG governance framework that delineates clear responsibilities, effectively enhancing ESG management and propelling the Group's high-quality development.

With the assistance of the Strategic and Sustainable Development Committee and the Sustainability Working Committee, the Board oversees and manages ESG affairs comprehensively, including strategy and goal setting, policy execution, progress review, performance monitoring, and ESG risk identification and response.

Scope of ESG Issues Supervised by the Board

Area	Issue	
Environmental	<ul style="list-style-type: none">Green energy production;Development and optimization of ecological environment management system (including energy conservation, water resource management, pollutant management, and ecological restoration).	<ul style="list-style-type: none">Development framework for strategic emerging industries;Multiple measures for reducing carbon emissions;Playing a role in climate change response.
Social	<ul style="list-style-type: none">Increasing investment into technologies;Accelerating technology transformation and application;Enhancing our capabilities of asset operations;Deepening partnerships;Facilitating employee development.	<ul style="list-style-type: none">Occupational health and safety management;Responsible supply chain;Product and customer responsibility;Stakeholders' management.
Governance	<ul style="list-style-type: none">Digital transformation;Cybersecurity, data security and privacy protection.	<ul style="list-style-type: none">ESG value creation;Business ethics.
ESG risks identification and response	<ul style="list-style-type: none">Incorporating ESG risks into the Company's risk management framework	

Board ESG Statement

The Board prioritizes ESG initiatives by actively incorporating ESG principles into the Group's strategic planning and business operations. This involves establishing and enhancing sustainability management structures and operational mechanisms, as well as guiding and overseeing ESG efforts and associated risk management. These actions collectively ensure the thorough implementation of the Group's sustainable development strategy.



ESG Management Guideline and Strategy

The Company adopts a top-down approach to ESG management. With the support of the Strategic and Sustainable Development Committee and the Sustainability Working Committee, the Board assesses and offers insights and recommendations on ESG issues that could influence the Company's long-term growth. This assessment takes into account the macro policy landscape, industry trends, and stakeholder expectations, utilizing diverse methods of stakeholder engagement and expert research. For further details, please see the Analysis of Material Issues section of this report.

We integrate significant ESG issues into strategic planning and daily operations, monitor and regularly review the progress of ESG initiatives, and enhance our ESG management capabilities. In this year, with the assistance of the Strategic and Sustainable Development Committee, the Board supervises and manages the ESG issues, reviewing and approving a number of proposals including the Company's carbon peak action plan, ESG strategies and goals setting.



ESG Goal Setting and Progress Review

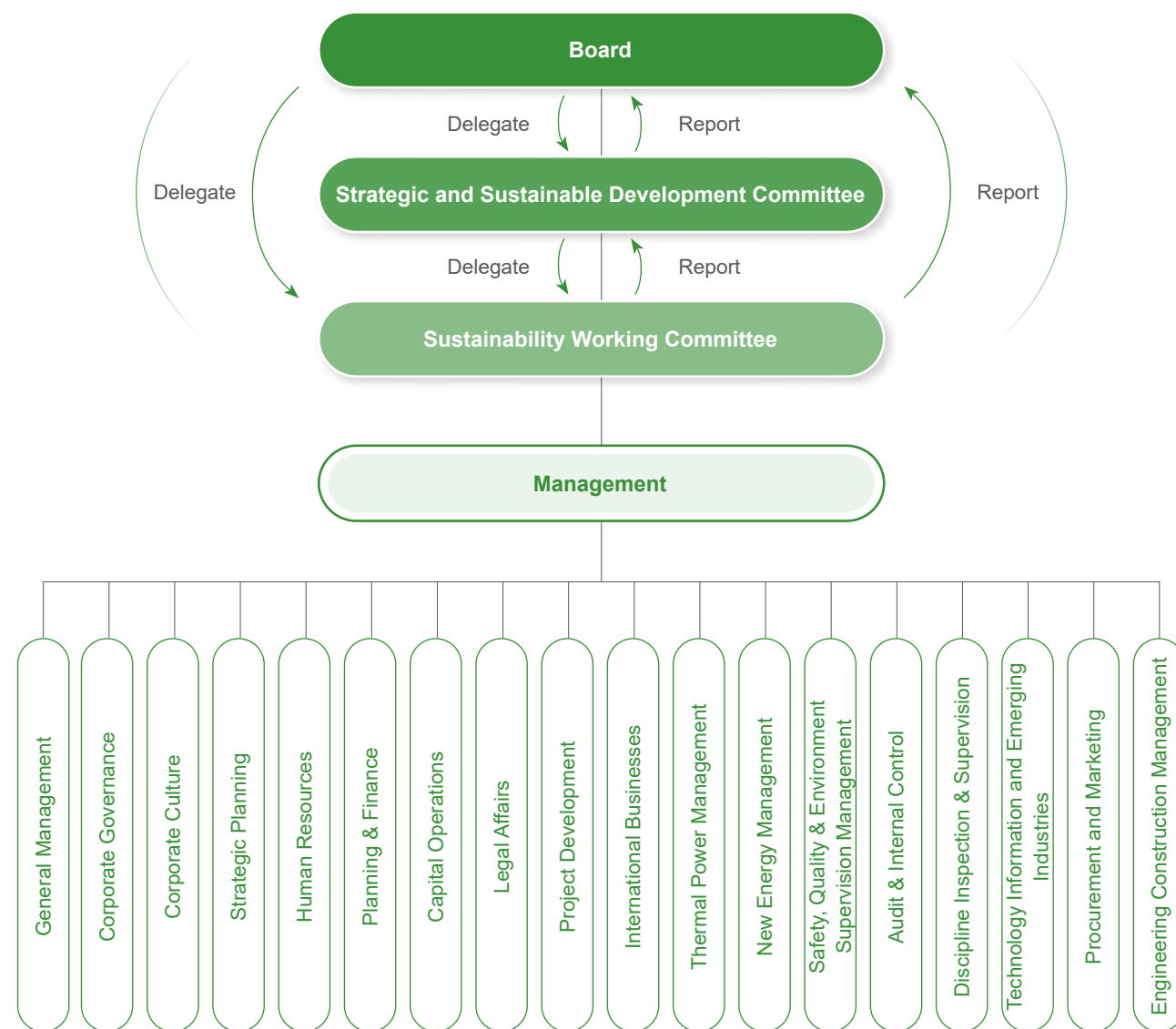
The Board is responsible for formulating and reviewing key performance targets and plans related to ESG, tailored to the Company's specific circumstances. It regularly monitors progress toward these objectives and evaluates outcomes to ensure the ongoing advancement of ESG initiatives and the successful realization of ESG goals. These targets and plans encompass various critical areas, including Board diversity, business ethics, compliance, the installed capacity of clean energy power plants, greenhouse gas emissions, resource utilization, employee rights and development, health and safety, supply chain management, community engagement, and public welfare. To enhance credibility, Ernst & Young Hua Ming LLP has been engaged to provide independent assurance on selected ESG performance indicators, ensuring their reliability. (For further details, please refer to Appendix I: Assurance Report in this report.)

The Company has established an ESG target accountability system that integrates key ESG-related indicators—including technological innovation, safety management, environmental protection, energy conservation and carbon reduction, and compliance—into the performance evaluations of executive directors and management. Compensation linked to performance is awarded based on these evaluation scores. In 2024, we expanded our integration of ESG factors into our performance evaluation system, utilizing assessments and incentives to motivate all units in executing ESG initiatives. This approach ensures the timely achievement of our strategic ESG goals.

ESG Governance Framework

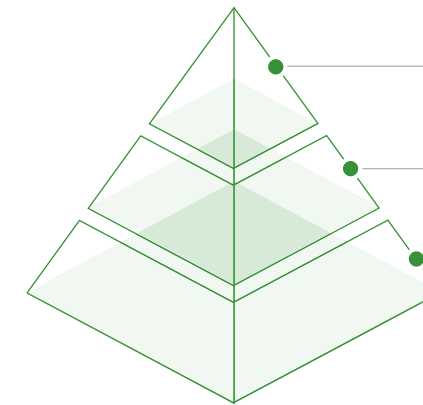
The Company has established an ESG governance structure comprising the Board —Strategic and Sustainable Development Committee— Sustainability Working Committee. The Board serves as the highest decision-making body for the Company's ESG matters. The Strategic and Sustainable Development Committee consists of five directors, chaired by Mr. HE Xi, the Chairman of the Board. Other members include Mr. GAO Ping, Executive Director and President; Mr. ZHOU Jie, Non-Executive Director; and Mr. LI Fang and Mr. YAU Ka Chi, Independent Non-Executive Directors. The Committee is responsible for leading the Sustainability Working Committee, formulating policies and plans related to the Group's strategic and sustainable development, and reviewing and evaluating opportunities and risks.

In 2024, we continued to strengthen our ESG structure by appointing ESG leaders and liaisons for all subsidiaries. We also conducted three ESG-focused training sessions for managers at different levels to enhance their understanding and awareness of ESG concepts and to build a more professional ESG management team.



China Power's ESG Governance Framework

China Power's ESG Governance Framework and Duties



Board

- Define the development direction and ultimately take responsibility and accountability for sustainability matters;
- Review and decide on major ESG management matters for the Company annually;
- Consider reports from the Strategic and Sustainable Development Committee and provide guiding opinions;
- Develop, oversee, and advance the Group's ESG goals.

Strategic and Sustainable Development Committee

- Identify, review, and assess goals, policies, practices, opportunities, and risks related to the Group's sustainable development, and provide recommendations to the Board;
- Examine and oversee ESG-related work and conduct ESG performance evaluations across the Group;
- Review the Group's annual ESG report and provide recommendations to the Board to ensure the accuracy, completeness, and continuous quality improvement of the report;
- Supervise the Sustainability Working Committee and monitor its activities.

Sustainability Working Committee

- Examine and identify sustainability factors that impact or relate to the Group's business or operations;
- Support the development of the Group's sustainable development strategy, goals and standards;
- Supervise and evaluate the effectiveness of the Group's sustainability policies and practices, and report on ESG performance;
- Supervise and participate in the preparation of the Group's annual ESG reports;
- Report to the Strategic and Sustainable Development Committee on a regular basis.

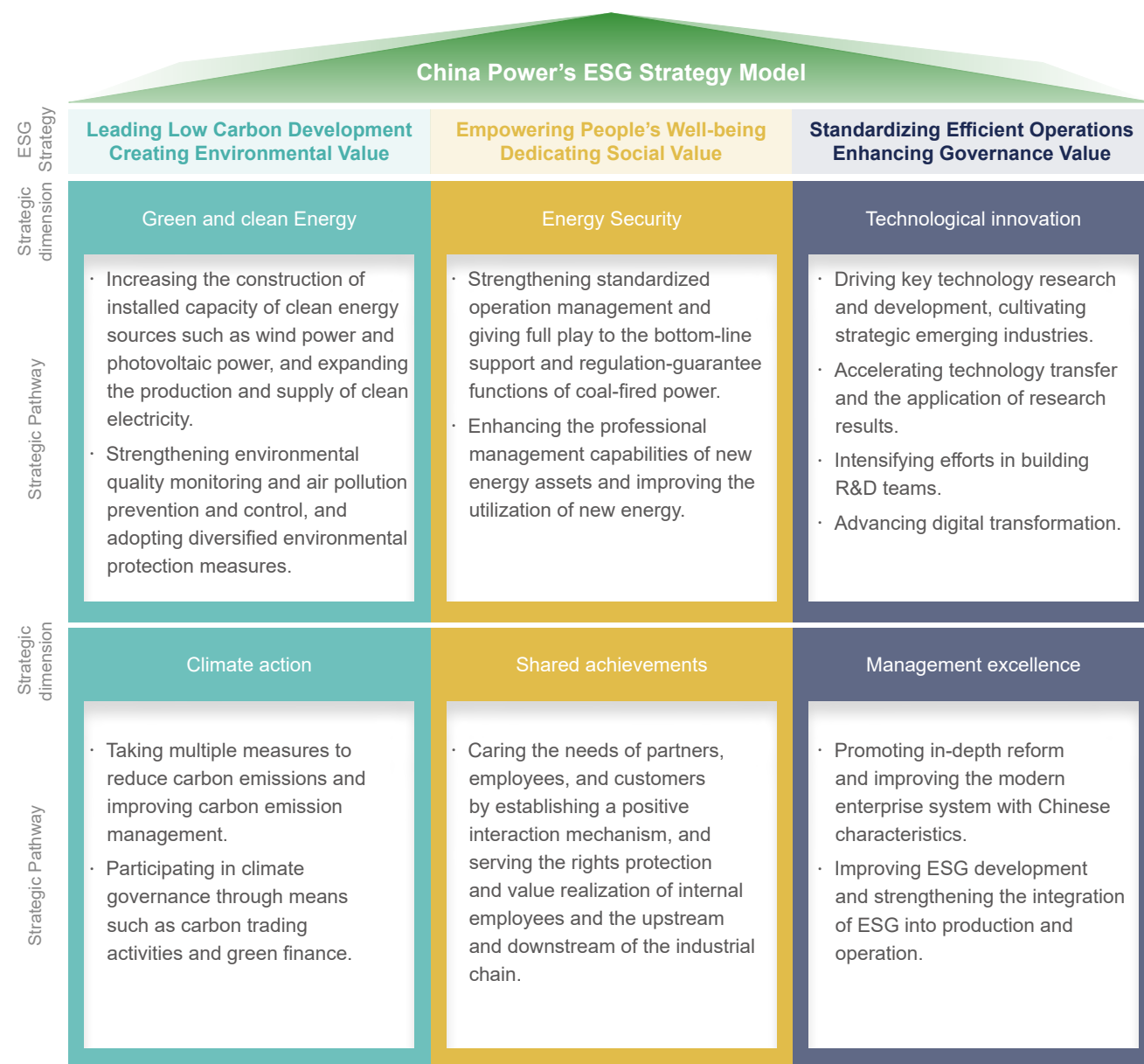
ESG Policies and Procedures

The Company is committed to continuously refining its ESG institutional framework by establishing a 1+N policy system to promote sustainable corporate governance. It has issued the Environmental, Social, and Governance Management Regulation (Trial) as the overarching guiding document for ESG initiatives. Additionally, the Company advances the development of specialized ESG sub-policies, including the release of the ESG Information Disclosure Management Measures (Trial), to foster an efficient ESG management mechanism.

The Company promotes the integration of ESG factors into existing investment management, procurement, and supplier management systems. To support this initiative, we have established key policies, including the Environmental Management Policy, Supplier Management Policy, and Diversity Policy. These foundational documents provide the framework necessary for the effective implementation of our ESG practices.

Strategy for Sustainable Development

The Company prioritizes top-level design for sustainable development, fully integrating the new development philosophy with ESG principles. We have developed and released the ESG Strategy Model, Pathways, and Targets, which outlines comprehensive pathways for practice across six core strategic dimensions. This ESG strategy model defines specific phased objectives and management metrics, allowing us to continuously monitor progress toward achieving our goals and implementing effective management measures to ensure the successful execution of our ESG strategy.



China Power ESG Strategy Pathways and Targets

Environmental	Short-term Target (by 2025)	Middle-term Target (by 2030)	Long-term Target (by 2035)
Proportion of clean energy installed capacity	>90%	Domestic >95% Overseas 100%	Domestic >95% Overseas 100%
Proportion of clean energy power generation	50%	60%	70%
Air pollutant emission intensity (calculated as air pollutant emissions divided by operating profit)	Emission density of SO ₂ , NO _x and flue gas and dust decline by		
	15% compared to 2022 levels	20% compared to 2022 levels	25% compared to 2022 levels
CO ₂ emissions	Decline by 20% compared to 2022 level	Decline by 30% compared to 2022 level	Decline by 40% compared to 2022 level
Thermal power net coal consumption rate ³	292 g/kWh	Further decline	Further decline
CCER development volume	Cumulative volume >= 1 million tons	Cumulative volume>=3 million tons	Cumulative volume>=5 million tons
Green power/green certificate trading volume	Increase by 20% compared to 2022 level	Increase by 25% compared to 2022 level	Increase by 30% compared to 2022 level

Social	Short-term Target (by 2025)	Middle-term Target (by 2030)	Long-term Target (by 2035)
Completion rate of smart station construction	New energy projects: 50%; Hydropower projects: 25%	Nearly 100%	100%
Number of strategic cooperation agreements	Accumulation > 400	Accumulation > 600	Accumulation > 800
Completion rate of employee annual training budget	90%	95%	98%
The proportion of suppliers selected according to the ESG evaluation standard system	Developing supplier ESG evaluation criteria system	Proportion of suppliers screened according to ESG evaluation criteria system reach 75%	Proportion of suppliers screened according to ESG evaluation criteria system reach 100%
Customer satisfaction	99%	99.5%	100%

Governance	Short-term Target (by 2025)	Middle-term Target (by 2030)	Long-term Target (by 2035)
Research and development expenses	Increase by 25% compared to 2022 level	Increase by 30% compared to 2022 level	Increase by 35% compared to 2022 level
Proportion of business ethics audit content included in the company's routine audit scope	Implement a comprehensive business ethics supervision and management framework, and outline the scope and content of business ethics audits	70% of business ethics audits are incorporated into the regular audit framework.	100% of business ethics audits are incorporated into the regular audit framework.
Annual number of new patent applications	Annual new patents ≥ 120, patents are applied in specific and consistently generate value over time.	Annual new patents ≥ 130, core technologies are converted to actual application projects.	Annual new patents ≥ 140, core technologies lead in the industry and are widely applied in the world.
Technology industry revenue share	Increase by 100% compared to 2022 level	Increase by 200% compared to 2022 level	Increase by 300% compared to 2022 level
Core business digital intelligence	98%	100%	100%

³ The statistical coverage of this analysis includes the Group's thermal power generation sector, incorporating coal-fired, natural gas, and environmental power generation.


Risk Management for Sustainable Development

We have seamlessly incorporated ESG risks into the Group's comprehensive risk management system, continuously refining our process for identifying, assessing, and responding to these risks. We have established a structured sustainability risk management framework that includes semi-annual risk monitoring and an annual comprehensive ESG risk assessment, tailored to industry characteristics and risk volatility. This approach ensures the timely identification and response to potential risks. In addition, we carefully evaluate the impact of various factors—including policy changes, market conditions, and climate change—on the Company's development strategy and operations. Risks are identified through cross-departmental collaboration, with coordination and summarization conducted by the ESG Office. The Audit and Internal Control Department integrates this information into the comprehensive risk management ledger. Finally, this information is submitted to the Risk Management Committee for review, culminating in the finalization of an ESG risk list.

Furthermore, we routinely undertake independent evaluations of our ESG risk management system to assess the effectiveness of our strategies. We are committed to proactively addressing key ESG risks, enhancing our risk prevention and control capabilities, and contributing to the continuous improvement of the Group's governance. This approach ultimately aims to foster more efficient, reliable, and sustainable operation and development.



Incorporating ESG Risks into the Comprehensive Risk Management Framework

Risk Type	Description	Mitigation measures	Outcome
Risk of policy and market changes	<p>Addressing climate change has become a global issue, with regulatory bodies worldwide successively issuing guidelines on climate risks. Achieving carbon peak and carbon neutrality has been integrated into the overall framework of national ecological civilization construction, leading to a comprehensive transformation of economic systems and development models.</p> <p>China is accelerating the development of a new power system, and new electricity systems such as energy storage and virtual power plants are developing rapidly. In 2024, competition for high-quality new energy projects intensified, which places higher demands on investment strategies, execution, and management capabilities, thereby increasing the risks associated with successfully bidding for new investment projects.</p>	<p>Strengthening policy research and market analysis, closely monitoring the introduction of new industries and market policies, interpreting policy directions, promptly adjusting and formulating response strategies, and actively carrying out relevant training.</p> <p>In line with the energy transition plans of key regions, accelerating the development of leading strategic emerging industries such as green power transportation and novel energy storage.</p>	<p>We are committed to actively fulfilling national objectives for carbon peak and carbon neutrality. We have successfully compiled a comprehensive carbon peak plan for China Power, which details the Company's current carbon emissions, outlines our green transformation initiatives, and specifies the implementation and safeguard measures we will undertake. This strategic approach significantly enhances our carbon emission management practices.</p> 
Risk of fuel cost fluctuation	<p>In 2024, the growth of domestic coal supply and demand moderated, resulting in a balanced overall market condition. Although price pivot went downward, and centralized inventories remained at elevated levels, potential regional or seasonal supply constraints may arise due to extreme weather events or unforeseen contingencies.</p>	<p>Increasing the volume of long-term agreements for coal supply; actively expanding direct procurement of imported coal to supplement supply; broadening the procurement of economical coal types and optimizing coal blending; monitoring contract fulfillment rates, adjusting procurement structures rationally, and staggering coal storage to control and reduce procurement costs.</p>	<p>We have achieved full coverage of medium- and long-term contracts, with a 90% fulfillment rate for annual long-term agreements, and expanded imported coal procurement, reaching a cumulative total of 2.28 million tons.</p> <p>We have fully implemented the coal blending management system and intensified safety and appropriate blending efforts, reaching a coal blending ratio of 59%.</p> <p>Upon market trends analysis, we completed coal storage for peak summer demand, and ensured supply during peak periods by storing 1.95 million tons of coal, and securing 1.535 million tons of forward-locked supply.</p> <p>We advanced the construction of the Smart Fuel digital system and launched the fuel supplier evaluation system.</p>
Risk of reform and business transition	<p>As the Company enters a new phase of strategic transformation and development, higher demands are placed on reform and innovation. Some platform companies in emerging strategic industries are still in the incubation period, presenting uncertainties in business models, operations, and profitability.</p>	<p>Timely following up on the latest policies and market trends in relevant fields, strengthening research on relevant industrial policies, enhancing the support of scientific and technological innovation for industrial development, and establishing and improving the management and governance model for strategic emerging industry platforms.</p>	<p>We have increased investment in scientific research and core technologies for emerging industries, carried out technological iterations, and created a differential advantage in industry competition. Currently, we have established a number of emerging industry companies with core competitiveness in fields such as intelligent energy, novel energy storage, green electricity transportation, underground geothermal energy, and virtual power plants.</p> <p>Through continuous exploration and practice of integration and deep collaboration among emerging industries, we have initially formed industrial clusters in areas such as photovoltaics, energy storage, direct current, flexible power, thermal energy, battery swapping, and charging, focusing on the four major energy-consuming sectors: construction, transportation, agriculture, and industry. This provides safe, reliable, green, intelligent, and cost-effective integrated energy solutions for transportation-energy integration, urban renewal, and energy transformation in industrial and agricultural sectors.</p>

Risk Type	Description	Mitigation measures	Outcome
Risk of market competition	As the electricity marketization process continues to deepen, the electricity consumption plans for commercial users are gradually being fully liberalized, and the proportion of market-based transactions continues to expand. The Company faces more intense competition in the electricity market, with risks of declining market share and falling market transaction prices.	Increasing market development efforts, standardizing electricity sales operations, and ensuring contracted electricity volumes. Strengthening regional coordination to secure market electricity prices for coal-fired power; making overall considerations in marketing and management models for new energy projects to enhance their market-based transaction levels.	Electricity Sales: Our eight power sales companies have acted as agents for 3,573 users, with the proxy electricity sold reaching 40,848,000 megawatt-hours, representing a year-on-year increase of 15.47%. Coal-fired Power: We have strengthened industry coordination, strictly prohibited malicious price reductions, sought for power generation quotas to ensure transaction prices are not lower than the regional average. During spot market operations, we focused on volume-price analysis to maximize profitable generation, while monitoring inter-provincial market dynamics and seizing inter-provincial trading opportunities. In 2024, the coal-fired power trading price was RMB 428.48 per megawatt-hour, representing a 13.48% increase compared to the benchmark electricity price. New Energy: We have strengthened our price trend forecasting and implemented well-considered medium- and long-term trading strategies monthly. We coordinated time-of-use pricing, optimized daily rolling plans, and allocated electricity quotas based on factors such as station location and curtailment conditions. Additionally, we capitalized on opportunities for cross-provincial and cross-regional green electricity trading to improve medium- and long-term transaction prices. As a result, the average trading price for the wind power sector reached RMB 343.52 per megawatt-hour, reflecting a 6.73% increase over the benchmark electricity price. Similarly, the average trading price for the photovoltaic sector was RMB 362.48 per megawatt-hour, representing an 8.54% increase compared to the benchmark electricity price.
Risk of novel market response	The supply and demand dynamics of the carbon trading and green power/green certificate markets remain unclear, presenting significant uncertainties. The price in the spot market decreases or there is a loss of earnings. The volume and price of green power and green certificate transactions are below average levels.	Keeping updated on the latest policies related to carbon trading and green electricity/green certificates. Developing pricing strategies based on the production years and trading volumes of green certificates to enhance the returns from green attributes. Strengthening employee skills training and using digital means to improve the level of spot market trading. Making full use of existing user channels to tap into the demand for green electricity and green certificates and increase the trading scale. Organizing the application for and trading of green certificates, and arranging for parity new energy projects to participate in green electricity trading.	Green Certificates and Green power: In 2024, a total of 13,611,906 green certificates were sold, alongside 5,198,404 MWh of green electricity transactions completed. The revenue ⁴ generated from participation in green power trading for the year reached RMB 325,224,900. Spot Market: The assisted decision-making system for spot market has been put into use in regions such as Shandong, Shanxi, Anhui, Hubei, and Gansu. We have thoroughly enhanced our institutional framework by consolidating our trial operation experiences from the spot market. In addition, we have developed the Implementation Rules for Spot Market Transaction Management (Trial) for China Power, aiming to standardize transaction management across all business units and facilitate full participation in the spot market.
Risk of New technology introduction	As the national energy structure adjusts, the proportion of clean energy continues to rise, and new energy technologies are constantly emerging. However, the lack of near-term validation and practices increases investment and operational risks.	By collaborating with companies focusing on developing key technologies, we establish highly specialized new energy technology incubation enterprises, promote the small - scale application of new technologies, earn experience in investment management, engineering construction, and production operation and maintenance of new energy technologies, and gradually cultivate a mature team for new energy technologies.	Xinyuan Taili was successfully established through collaborative efforts. In 2024, the company launched the development and construction of new geothermal cooling and heating projects in Fangshan District, Beijing. As a result, the geothermal energy coupling project commenced successfully, and it was commissioned and handed over for production and operation ahead of the energy supply season.

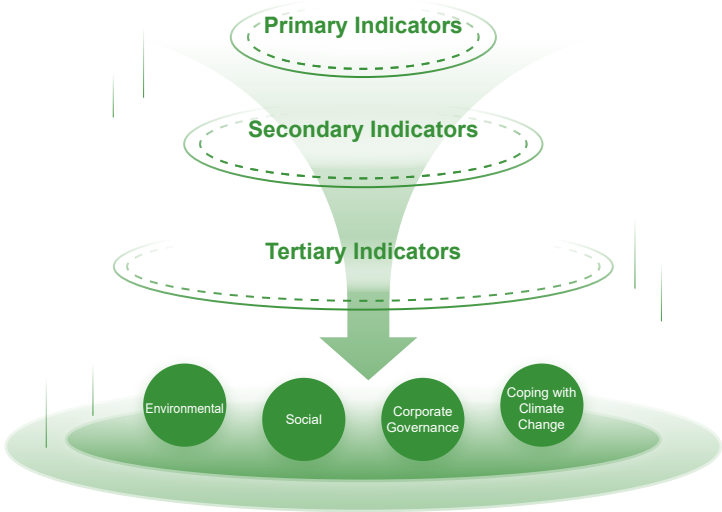
⁴ The statistics represent the green premium income generated from green electricity transactions, which refers to the portion of revenue obtained from selling green electricity that exceeds the conventional electricity price, reflecting the environmental and low-carbon value of green electricity.

Risk Type	Description	Mitigation measures	Outcome
Risk of supply chain	The prices of some commodities are highly volatile, and the risk-resistance of suppliers is weakening. This may lead to situations where bid winners of procurement projects refuse to sign contracts or fail to fully perform, resulting in material supply disruption and affecting stable production.	Conducting research on the price trends of commodities such as photovoltaic modules to guide the formulation of procurement strategies. Expanding the scope of suppliers and cultivate high-quality and stable suppliers. Improving contract terms, increasing the intensity of penalty for breach of contract, and introducing price adjustment mechanisms, and achieve risk-sharing.	In 2024, China Power revised its Supplier Management Policy to enhance the oversight of supplier operations. The Company implemented thorough investigations into significant misconduct issues, including bid-rigging and collusion. These measures were transparently disclosed through online procurement system, leading to disciplinary actions against 305 suppliers found to be involved in serious misconduct.
Risk of key talent shortage	The current staffing levels are inadequate to meet market needs. Newly commissioned new energy projects, to a certain extent, lack personnel with the capabilities in electricity trading, green electricity, green certificates, and auxiliary services, which increases the operational risks.	Accelerating talent development by combining in-house cultivation and external recruitment, with a focus on attracting skilled professionals for core positions, high-precision and cutting-edge roles, as well as international positions. Establishing a talent pipeline development framework, supported by competitive compensation packages and a systematic talent training system.	In 2024, China Power performed market-oriented open recruitment in the fields of corporate governance, ESG, new electricity systems, and emerging industries, and introduced 70 technical and management professionals. We conducted regular follow-ups with newly hired employees to continuously enhance recruitment quality. While building a talent pipeline and tiered talent structure to support corporate transformation and development, we stimulated the catfish effect by introducing fresh talent, fostering internal competition and vitality. In 2024, China Power implemented talent training and compensation incentive policies aimed at fostering the growth of emerging industry companies, with a particular emphasis on supporting and recognizing high-end and specialized talent. Notably, outstanding employees of Xinyuan Smart Storage were recognized as leading talents 2023 under the Fangshan Juyuan Plan in Fangshan District.

Indicators for Sustainable Development

The Company continues to refine its ESG indicator system to align with the disclosure requirements of the Hong Kong Stock Exchange and leading international ESG rating standards. As part of this initiative, it has optimized the China Power ESG Indicator Matrix and developed comprehensive ESG Data Reporting Guidelines. These measures not only clarify the content of ESG management but also define responsibilities, establishing a cohesive framework that strengthens our approach to ESG management.

The Company is committed to developing a robust online ESG information management system that leverages digital and intelligent technologies to enhance the quality and efficiency of our ESG management practices. We have successfully integrated this ESG information management system with our existing ERP system and are progressing with its ongoing development. This system offers online tools for data entry and is interconnected with other relevant systems, which increases the proportion of automated data collection. As a result, we are able to significantly improve the accuracy of ESG information gathering and overall work efficiency.



China Power's ESG Three-tiered Indicator System, Digital Means to Enhance Management Effectiveness

Communication with Stakeholders

Considering industry characteristics and business operations, we have put in place effective communication mechanisms with nine key categories of stakeholders, including regulatory bodies, investors, employees, customers, suppliers, creditors, partners, peers, and the general public, and conducted stakeholder impact assessments. As the highest level of stakeholder management, our Board actively identifies stakeholder expectations, responds to demands across all parties, and works to enhance the Company's ESG performance.

Stakeholder Communication Mechanisms

Stakeholders	Expectations and requests	Modes of Communication and Participation	Our response
 Regulators	<ul style="list-style-type: none"> Compliance with laws and rules Compliance operations Tax payments under laws Energy saving and emission reduction Driving employment 	<ul style="list-style-type: none"> Participation in relevant meetings Work reporting Information submission 	<ul style="list-style-type: none"> Abide by laws and regulations Accelerating business development and transition Actively engaging and communicating with relevant regulatory bodies
 Investors	<ul style="list-style-type: none"> Information disclosure Increasing profit Stable dividend payout policy Increasing the capitalization Lowering the operational risk ESG performance 	<ul style="list-style-type: none"> Performance briefings Roadshow Reverse roadshow Investors conference General meeting of shareholders Daily communications 	<ul style="list-style-type: none"> Maintaining close communication with investors to enhance the timeliness of information disclosure. Striving to enhance the profitability of the Group. Adopting market suggestions to improve the Group management.
 Employees	<ul style="list-style-type: none"> Safeguarding the legitimate rights and interests of employees Protecting the occupational health and safety Offering proper salaries and benefits Securing fair career development Caring for employees 	<ul style="list-style-type: none"> Worker congress Employee discussions Employee satisfaction survey Reasonable suggestions Internal affairs disclosure Daily communications 	<ul style="list-style-type: none"> Signing and observing employment contracts in accordance with the law and implementing democratic management. Developing an occupational safety management system and strengthening employee protection against occupational diseases. Establishing a mechanism for employee whistle-blowing and taking measures to protect whistleblowers Optimizing compensation and benefits policy Providing systematic career planning and employee development training. Assisting employees in need and serving retired employees.
 Customers	<ul style="list-style-type: none"> Contract fulfillment Quality assurance Service assurance Mutual development 	<ul style="list-style-type: none"> Sales and ordering meetings Customer satisfaction survey 	<ul style="list-style-type: none"> Delivering high-quality, efficient, safe, and green energy products and services. Keeping business secrets

Stakeholders	Expectations and requests	Modes of Communication and Participation	Our response
 Suppliers	<ul style="list-style-type: none"> Long-term cooperation Honoring commitments Fair and transparent procurement Shared development Mutual development 	<ul style="list-style-type: none"> Supplier conferences Supplier training Bidding information transparency Strategic cooperation Cooperation agreement 	<ul style="list-style-type: none"> Following transparent business principles and processes. Standardizing management and fulfilling contracts and agreements. Applying environmental and social requirements into supplier management system and public supplier management policies
 Creditors	<ul style="list-style-type: none"> Strong debt repayment capability. Repaying the principal and interest on time. Mutual trust and cooperation 	<ul style="list-style-type: none"> Cooperation agreement 	<ul style="list-style-type: none"> Preventing financial risks Repaying loans on time Strengthening communication
 Partners	<ul style="list-style-type: none"> Establishing harmonious and interactive friendly relationship. Achieving win-win cooperation and mutual development 	<ul style="list-style-type: none"> High-level mutual visits Strategic cooperation 	<ul style="list-style-type: none"> Broadening communication and cooperation channels Strengthening communication and cooperation Strengthen work related to IUR cooperation
 Peers	<ul style="list-style-type: none"> Abiding by policies and industry regulations Creating a healthy competitive environment Promoting the development of the electric power industry 	<ul style="list-style-type: none"> Industry associations Discussions and meetings 	<ul style="list-style-type: none"> Ensuring strict compliance with industry policies and regulations Upholding business ethics, and maintaining healthy market competition Responding to power market reform to enhance the Company's core competitiveness Strengthening industry exchanges to promote industry development
 Public	<ul style="list-style-type: none"> Supporting regional economic growth Protecting community living environments Building harmonious communities 	<ul style="list-style-type: none"> Cooperation for joint development Public welfare activities Awareness activities 	<ul style="list-style-type: none"> Supporting the economic development of the regions where we operate Organizing environmental public welfare activities Performing out community volunteer service

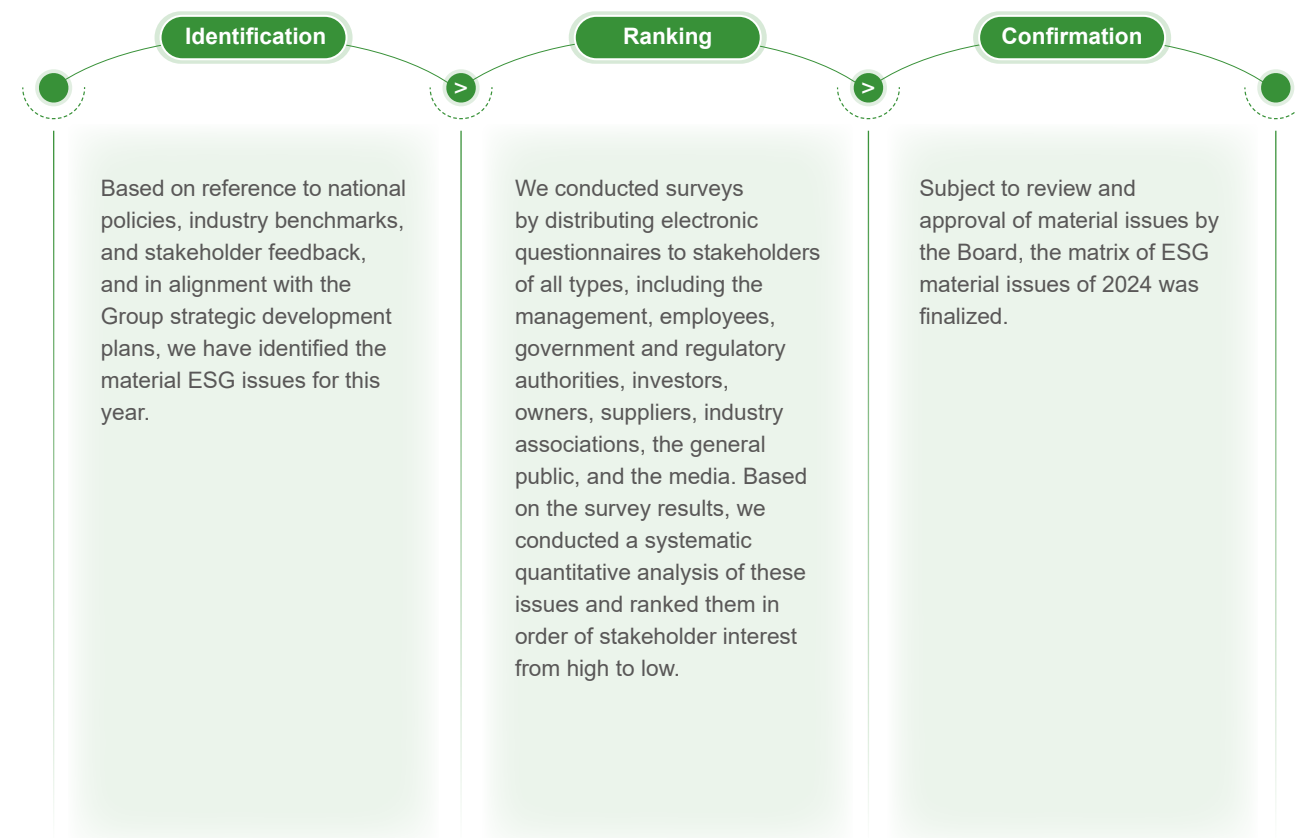
The Company has established diverse communication channels to ensure effective communication with stakeholders and timely identification of their potential concerns. Internal communication channels include meetings, briefings, networks, letters, calls, emails, etc. External communication channels cover regular meetings, report releases, public communication, and community activities with regulatory bodies, investors, suppliers, and partners.

The Company conducts stakeholder impact assessments through market research and social surveys to identify the potential impacts of various stakeholders on the Company's operations and decisions. Local stakeholders are also included in the assessment, with a focus on the economic, social, and environmental impacts of the Company's activities, as well as the requirements of local governments and regulatory authorities.

Analysis of Material Issues

In 2024, we collect, sort and analyze the issues of interest to our stakeholders by distributing questionnaires. We assess the material issues with consideration of the internal impact for business and external influence for society and environment. Combining the industrial development trends with the Company's management strategies and ESG policy requirements, we sort out 27 issues that have a significant impact on the Company and external stakeholders, helping the Group clarify the focus of information disclosure and the direction of future management.

Determination of Material Issues



Matrix of Material Issues

After identifying, ranking, and confirming the 27 issues, China Power illustrated their significance levels using a matrix. In this matrix, highly significant issues are positioned in the top right corner, moderately significant issues are placed in the middle, and less significant issues are located in the bottom left corner.

We consistently monitor and analyze highly important material issues, actively identifying, managing, and mitigating the impacts, risks, and opportunities associated with sustainable development. Our goal is to foster stable business operations while collaborating with all stakeholders to create and share sustainable corporate value.

Matrix of Material Issues



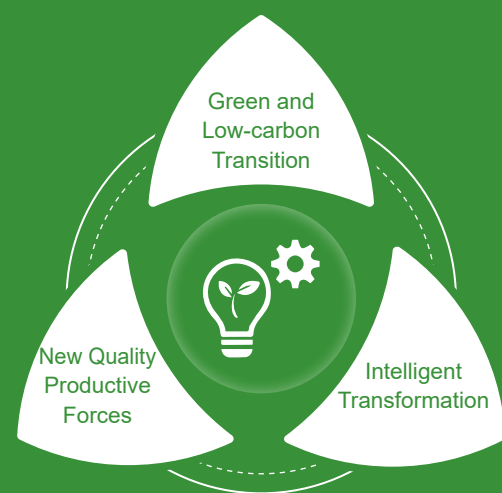
The Ranking of Material Issues

High				Medium				Low			
1	Protecting investor rights and interests	10	Customer responsibility	19	Employees development and training	26	Social contributions				
2	Clean energy development and utilization	11	Compliance and risks controls	20	Corporate diversity	27	Green investing and financing				
3	Business ethics	12	Green and low-carbon development	21	Renovation with eco-friendly technologies						
4	Energy supply	13	Stakeholders management	22	Emerging industries development						
5	Work safety	14	Greenhouse gas emissions	23	Emissions and discharges management						
6	Innovative development	15	Responsible supply chain	24	Digital transformation						
7	Protection of employee rights and interests	16	Information security	25	Community engagement						
8	Addressing climate change	17	Management of resources								
9	Employees occupational health and safety	18	Ecological and environmental Protection								

Feature Low-carbon Transition

Strategic Actions and Outcomes

China Power embraces green and low-carbon transformation as its primary objective, steadfastly aligning with the Dual Carbon goals. The Company systematically advances the optimization of energy structures and fosters technological innovation to build a clean energy supply system characterized by multi-energy complementarity and high-efficiency integration. By nurturing new quality productive forces, accelerating intelligent upgrades, and exploring innovative green financing models, China Power significantly enhances energy utilization efficiency and economic value. Leveraging intelligent energy technologies and cutting-edge solutions, the Company continuously forges new pathways for low-carbon development, contributing to the green transformation and sustainable development of the energy industry.



Green and Low-carbon Transition

China Power is committed to pursuing green and low-carbon development. The Company systematically advances the construction of clean energy bases and deepens its focus on new energy sources. By fully deploying the development and optimized utilization of renewable energy, China Power promotes the efficient integration and versatile application of clean energy across multiple scenarios. It accelerates the establishment of a green and efficient energy supply system while continuously enhancing its green economic value through innovative technological solutions and green financing models. In doing so, China Power significantly contributes to the sustainable development and low-carbon transformation of the global energy industry.

Clean Energy

China Power is committed to a green and low-carbon development strategy by comprehensively advancing the construction of large-scale clean energy bases and continuously expanding its new energy presence. Focusing on regions with resource advantages, the Company promotes the orderly implementation of key projects such as multi-energy complementarity, offshore wind power, and integrated photovoltaic-storage systems. A series of million-kilowatt-level clean energy bases have been successively completed and put into operation, deepening technological innovation and scaled development, and continuously enhancing clean energy supply capacity (for details, please refer to the *Renewable Energy Opportunities* under the ESG Issue Management section on the Company's website). In 2024, the capital expenditure of clean energy sector in China Power was RMB 24.584 billion, accounting for 87.14% of the Group's capital expenditure.



China Power's capital expenditure in clean energy amounted to

RMB **24.584** billion

accounting for

87.14% of the Group's capital expenditure



The 110MW integrated photovoltaic-storage project - achieved the first-phase array grid-connected power generation

In December 2024, the first-phase array of the 110MW integrated photovoltaic-storage project of Shanxi Company successfully achieved grid-connected power generation. The project covers a total area of approximately 2,064 mu at an altitude of about 1,500 meters, with an estimated annual green electricity generation of 201,365 MWh, marking a significant breakthrough in the construction of the clean energy base in northern Shanxi.



The 110MW Integrated Photovoltaic-Storage Project of Shanxi Company



Shandong Peninsula South U-Site Offshore Wind Power Project achieved full-capacity grid-connected power generation

In October 2024, the Phase II 450 MW project of the Shandong Energy's Shandong Peninsula South Offshore Wind Power Base U1 Site achieved grid connection, marking the full-capacity grid connection of the U-Site Project, the largest single grid-parity offshore wind power project in China. The total installed capacity of the project is 1,500 megawatts. It is expected to provide 255,000 megawatt-hours of clean electricity annually, reduce the consumption of standard coal by 829,000 tons, and cut carbon dioxide emissions by 2.299 million tons, thus making a significant contribution to the development of clean energy and the realization of the dual-carbon goals.



Phase II 450 MW project of the Shandong Energy's Shandong Peninsula South Offshore Wind Power Base U1 Site

Green Finance

China Power has pioneered innovative green bond financing models, successfully issuing a range of groundbreaking financial instruments, including the nation's first CCER carbon reduction-linked bond, a 10-year green panda bond, and a 5-year carbon-neutrality bond. The capital raised through these initiatives is dedicated to the construction and operation of clean energy projects, significantly lowering financing costs, optimizing debt structures, and accelerating the Company's transition to a clean and low-carbon future. These initiatives not only invigorate the green bond market but also foster a deeper integration of green finance within the energy industry.

In 2024, China Power's case, CCER-linked Green Bond to Encourage Renewable Energy Transition, was included in the 20 Cases of Private Sector's Sustainable Development in China by the United Nations Global Compact (UNGC) for its pioneering and exemplary nature. Additionally, it was chosen as a typical case by the Green Bond Standards Committee of the National Association of Financial Market Institutional Investors (NAFMII), providing new insights for corporate low-carbon transformation and exploring innovative financing pathways for the global energy industry.

Green Energy Value

China Power focuses on creating value through green energy, comprehensively promoting cross-regional consumption of new energy, green rights development, and international green certificate trading. By signing three-year cross-regional electricity transmission agreements, expanding the green power trading market, and developing carbon assets, the Company builds a value system that deeply integrates clean energy and the green economy, effectively enhancing the economic benefits and market competitiveness of new energy projects.

China Power's Highlights in Green Value Creation in 2024



Shandong Energy's Peninsula South 3 Offshore Wind Power Project has successfully earned the nation's first new CCER certification.



The A and S wind farms under Kazakhstan Energy Investment (an entrusted company of China Power) have completed international renewable energy certificate (I-REC) registration and certification.



As of the end of 2024, China Power had successfully completed cumulative green electricity transactions amounting to

5,198,404 MWh,

resulting in green electricity trading revenue⁵ of

325,334.9 RMB'000



the Company has conducted green certificate transactions totaling

13,611,906 certificates

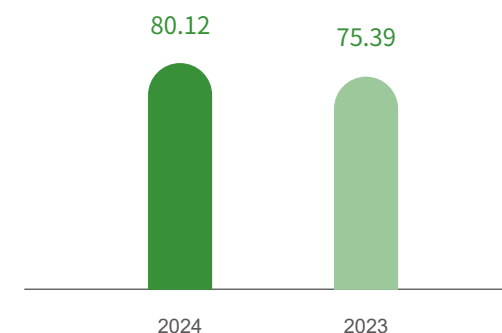
generating revenue of

748,289 RMB'000

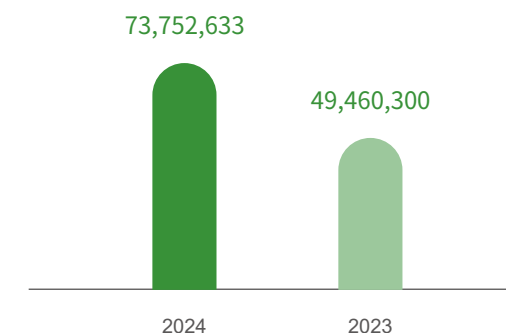
⁵ The statistics represent the green premium income generated from green electricity transactions, which refers to the portion of revenue obtained from selling green electricity that exceeds the conventional electricity price, reflecting the environmental and low-carbon value of green electricity.

Clean Energy Performance Highlights

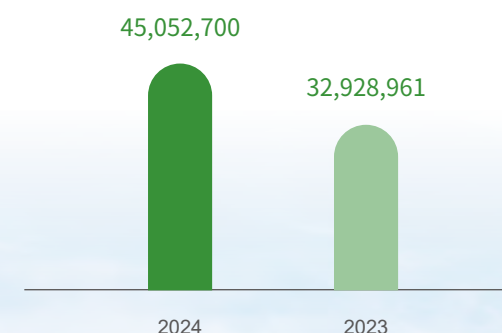
Consolidated installed capacity of clean energy (%)



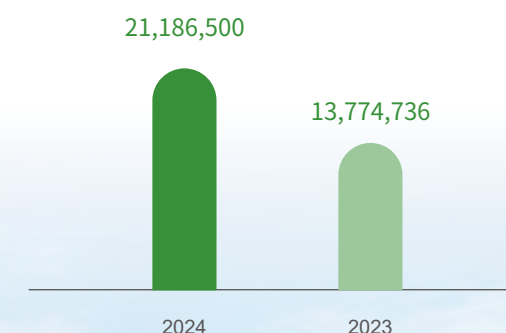
Clean energy power generation (MWh)



Equivalent CO₂ emissions reduction (Ton)



Equivalent standard coal consumption reduction (Ton)



New Quality Productive Forces

China Power is dedicated to promoting green and low-carbon development, consistently fostering the cultivation and advancement of new quality productive forces in line with the Dual Carbon goals. By implementing innovative practices in integrated intelligent energy construction, breakthroughs in energy storage technology, transportation-energy integration, geothermal energy development, and the deployment of virtual power plants, the Company continually enhances the efficiency of green energy utilization. Furthermore, it expands the application of low-carbon technologies and builds a clean, efficient, and intelligent energy service system, thereby laying a strong foundation for the green transformation of the economy and society.

Intelligent Energy

China Power continues to advance the construction of integrated intelligent energy systems, leveraging innovative models to support clean energy development and efficient utilization. By focusing on improving clean energy utilization efficiency and intelligent management, the Company promotes the deep integration of energy systems with multi-scenario applications, enhancing energy service capabilities and operational efficiency.

Xinyuan Zhonghui's Zhoukoudian Town project, the first integrated PSDF system, has achieved grid-connected power generation

In July 2024, Xinyuan Zhonghui's distributed photovoltaic power generation project for Zhoukoudian Town government successfully achieved grid connection. Utilizing three-dimensional spaces such as building rooftops, exterior walls, parking sheds, and cultural display boards, the project established an integrated intelligent energy system combining distributed photovoltaics, DC microgrids, user-side energy storage, flexible DC loads (charging piles), and a photovoltaic plaza. The project is expected to generate an average of 177 MWh of electricity annually, saving 58 tons of standard coal and reducing CO₂ emissions by 176 tons, successfully creating the first photovoltaic-storage-direct current-flexible demonstration site in Fangshan District.



Small-sized Energy Storage Units



Zhoukoudian Low-carbon PSDF Project Gets Grid Connected

China Power's 85MW integrated intelligent energy project for Mona Lisa in Teng County, Guangxi, achieved grid connection

In March 2024, the 85MW integrated intelligent energy project for Mona Lisa (a ceramics company) in Teng County, Guangxi, invested and constructed by China Power, successfully achieved grid connection, marking the formal operation of the largest commercial and industrial rooftop distributed photovoltaic project in Guangxi. Covering a rooftop area of 640,000 m², the project is expected to generate an average of 81,664.4 MWh of electricity annually, saving 25,500 tons of standard coal and reducing carbon emissions by 66,000 tons each year, helping the enterprise achieve energy conservation and carbon reduction.



85MW Integrated Intelligent Energy Project for Mona Lisa in Teng County, Guangxi

Novel Energy Storage

Xinyuan Smart Storage focuses on the intrinsic safety and technological innovation in the energy storage sector, integrating research resources to build a development platform. It tackles key challenges in energy storage system safety, efficiency improvement, and intelligent management, promoting the deep integration of energy storage technology with multi-scenario applications. By creating high-safety, low-energy-consumption energy storage solutions and leveraging national-level key laboratories, the company advances energy storage technology research and industrial practices, driving high-quality development in the sector.



Xinyuan Smart Storage launched the Smart Storage Galaxy series super-molecular fully-submerged energy storage integrated units for commercial and industrial purposes

In October 2024, Xinyuan Smart Storage unveiled the Smart Storage Galaxy series super-molecular fully-submerged energy storage integrated units for commercial and industrial purposes at the 2024 National Transportation-Energy Integration Technology Innovation and Development Summit. With super-molecular full-submersion technology at its core, the system ensures absolute safety. It employs advanced cooling technology to reduce energy consumption and extend system lifespan. Equipped with a digital cloud platform, it enhances operational efficiency and eliminates the need for manual maintenance, setting a benchmark for multi-scenario applications in the commercial and industrial energy storage sector.



Xinyuan Smart Storage's Smart Storage Galaxy Series Super-molecular Fully-submerged Energy Storage Integrated Units for Commercial and Industrial Purposes



The Joint Innovation Key Laboratory for Electrochemical Energy Fire Safety under the Ministry of Emergency Management was unveiled

On 14 November 2024, the Joint Innovation Key Laboratory for Electrochemical Energy Fire Safety under the Ministry of Emergency Management led by China Power was officially launched in Fangshan Park, Zhongguancun, Beijing. The laboratory is designed to address the global problem of frequent fire and explosion accidents in electrochemical energy storage. It focuses on the cross-field integration of energy and emergency technologies, undertakes the national tasks of safety technology research and practical application throughout the energy storage process, and provides safety guarantee and an innovation-driven demonstration for the high-quality development of the energy storage industry.



The Joint Innovation Key Laboratory for Electrochemical Energy Fire Safety under the Ministry of Emergency Management Unveiled

Green Power Transportation

Qiyuanxin Power (an associate of the Company) lives the concept of green and low-carbon development, accelerates the energy transformation in the transportation field, and constructs an integrated transportation - energy ecosystem. It has successfully established multiple demonstration projects of transportation-energy integration nationwide, comprehensively promoted green transportation solutions, and taken the lead in the Demonstration of Heavy-Duty Truck Battery-Swap Station Construction, Networking and Operation pilot task in the construction of a country with strong transportation networks.

By the end of 2024, Qiyuanxin Power had cumulatively operated over 50,000 electric heavy-duty trucks and construction machinery, deployed over 1,100 charging and battery swapping stations, linked up green transportation trunk lines exceeding 30,000 kilometers, reducing diesel consumption by 1.72 million tons and cutting carbon dioxide emissions by 5.32 million tons.



Qiyuanxin Power has built the green transportation route for raw materials - the Chengde-Tangshan line for Zhaofeng Iron and Steel

In November 2024, after years of efforts into deploying charging and battery-swapping stations, Qiyuanxin Power successfully established the Chengde-Tangshan line for Zhaofeng Iron and Steel, a green transportation route for raw materials. This route meets the energy-replenishment needs of local electric heavy-duty truck fleets, helps Tangshan become the top city for electric heavy-duty trucks in China, and creates a benchmark city for the green and low-carbon transformation of the road freight industry.



Electric Heavy-duty Trucks



Battery Swapping and Charging Station at Chengde-Tangshan Line for Zhaofeng Iron and Steel



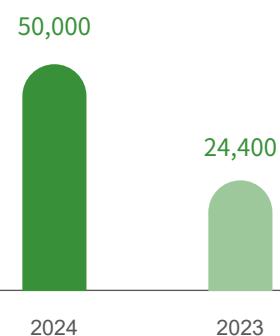
Qiyuanxin Power implemented the Electric Hunan electric cargo ship demonstration project, creating a green intermodal transport system across water and land

In August 2024, the Electric Hunan, an electric cargo ship demonstration project implemented by Qiyuanxin Power was included in the special pilot tasks for building a country with strong transportation networks. The project established a 160 km electric container ship demonstration route from Chenglingji Port to Changsha Port, integrating with electric heavy-duty trucks to create a green intermodal transport system for water and land, promoting the green and low-carbon transformation of Hunan's inland waterway shipping.

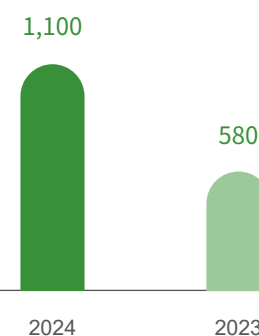


Electric Cargo Ship Demonstration Project for Hunan

Cumulative operation of electric heavy-duty trucks and construction machinery (Unit)



Construction of battery swapping and charging stations (Set)



Geothermal Energy

Xinyuan Taili adheres to the national strategy of Carbon Peak and Carbon Neutrality by deeply advancing the development and utilization of geothermal energy. By establishing an Academician and Expert Workstation as a R&D platform, the company focuses on tackling key technical challenges in the geothermal field. It promotes the optimization and upgrading of multi-scenario application models, including shallow and deep geothermal energy, and concentrates on implementing projects and technological innovation in key regions. The company explores new pathways for clean energy supply, continuously improving the efficiency of geothermal energy utilization.



The first renewable energy system project of Xinyuan Taili has officially commenced operation and been successfully implemented

In July 2024, Xinyuan Taili implemented a renewable energy system in Liangxiang Town, Fangshan District, Beijing. The system employs a combination of ground-source heat pumps and air-source heat pumps to provide heating and cooling services. The project, officially launched at the Fangshan District Ecology and Environment Bureau, is expected to deliver an annual cooling capacity of 1,649 GJ and a heating capacity of 1,304 GJ. It will save 43.03 tons of standard coal and reduce CO₂ emissions by 97.24 tons annually, accelerating the transition of building energy systems to green, low-carbon, and renewable energy solutions.



Renewable Energy System for Fangshan Ecology and Environment Bureau



Xinyuan Taili has signed an agreement with an academician from the Chinese Academy of Sciences to establish an Academician and Expert Workstation

On 20 April 2024, Xinyuan Taili signed an agreement with an academician from the Chinese Academy of Sciences to establish an Academician and Expert Workstation. Focusing on research of technology system for geothermal energy development potential assessment and utilization, the workstation will concentrate on key areas such as shallow geothermal energy, sewage heat energy for heating and cooling, and deep geothermal centralized heating. It aims to tackle several bottleneck technical challenges while accelerating the transformation of scientific achievements and the cultivation of scientific talent, providing significant support for advancing geothermal energy technological innovation and high-quality development.



Signing Ceremony for the Academician and Expert Workstation

Virtual Power Plants

China Power is leading with digital transformation to comprehensively advance the research, development, and practical application of virtual power plant (VPP) technology. By deeply integrating the resource advantages of both supply and demand sides, the Company optimizes the flexibility and reliability of the new electricity system. Through the aggregation of distributed energy resources, industrial and commercial users, and other adjustable resources, it enhances load regulation capabilities and promotes the innovative application of VPP platforms in energy supply and market trading, paving the way for the optimization and upgrading of energy systems and the expanded utilization of clean energy.

The virtual power plant project by Anhui Company has been included into the first list of virtual power plant demonstration projects in Anhui Province

In August 2024, the virtual power plant project by Anhui Company was successfully included in the first batch of virtual power plant demonstration projects in Anhui Province. As the first platform within Anhui's power generation group to be integrated into the new power load management system, this plant deeply leverages the resource advantages of both supply and demand sides. By aggregating distributed adjustable resources, it enhances the flexibility and reliability of the new electricity system, providing significant support for regional energy supply assurance and virtual power plant technology demonstration in Anhui.



Visit to the Virtual Power Plant



Virtual power plant by Hubei Company got registered

In August 2024, the virtual power plant by Hubei Company passed performance testing and was registered with the Hubei Electricity Trading Center. Leveraging its independently developed virtual power plant system platform, the company integrated adjustable resources such as electricity sales to industrial and commercial users and distributed energy to participate in load regulation. Entering the electricity market trading as a new type of market entity, this marks a significant breakthrough for Hubei Company in innovation-driven and digital development, providing strong support for accelerating the implementation of emerging industries and the construction of clean energy enterprises.



Virtual Power Plant at Hubei Company

Highlights in Cultivation of New Quality Productive Forces

Indicator	Unit	2024	2023
Scale of new user-side integrated intelligent energy projects	MW	1,261.1	1,234.3
Scale of new energy storage projects	MW	101.4	741

Intelligent Transformation

China Power is accelerating its intelligent transformation by leveraging digital technologies and smart equipment to upgrade management and business models, driving the intelligent upgrade of core operations. This initiative sets an innovative benchmark for the safe operation and intelligent development of the energy industry.

Technology Empowered Safety Management

China Power is committed to empowering safety management through technology, comprehensively driving the transformation of work safety models toward digitalization and intelligence. To build an intrinsic safety management system, the Company has formulated the 2024–2025 Technology-Driven Safety Rolling Action Plan. It promotes the application of the Industrial Internet + Safety Production platform, innovates safety supervision methods, and strengthens intelligent control of on-site operations. Additionally, the Company accelerates the promotion and application of advanced equipment, such as underwater inspection robots, automatic dredging devices, and intelligent inspection robots, to replace high-risk tasks. These technological measures significantly enhance safety management levels, providing strong guarantees for work safety and the optimization of employee working environments.



Underwater Testing Robot



Boiler Water-cooling Wall Inspection Robot



Anhui Company has advanced technology-driven safety initiatives through its complementary grazing and photovoltaic smart power station project

In 2024, Anhui Company prioritized work safety by leveraging its complementary grazing and photovoltaic smart power station project to tackle technical challenges. Utilizing artificial intelligence and edge computing technologies, the company achieved real-time data analysis and early warning. Through dual-spectrum heavy-duty pan-tilt-zoom cameras, it enabled 24/7 monitoring of key fire prevention areas, effectively ensuring the safety of operation and maintenance personnel. Additionally, the deployment of remote visualization equipment supported expert diagnosis and assisted maintenance, reducing maintenance costs and enhancing equipment reliability. These efforts provided robust technological support for intelligent operation and maintenance as well as employee safety.

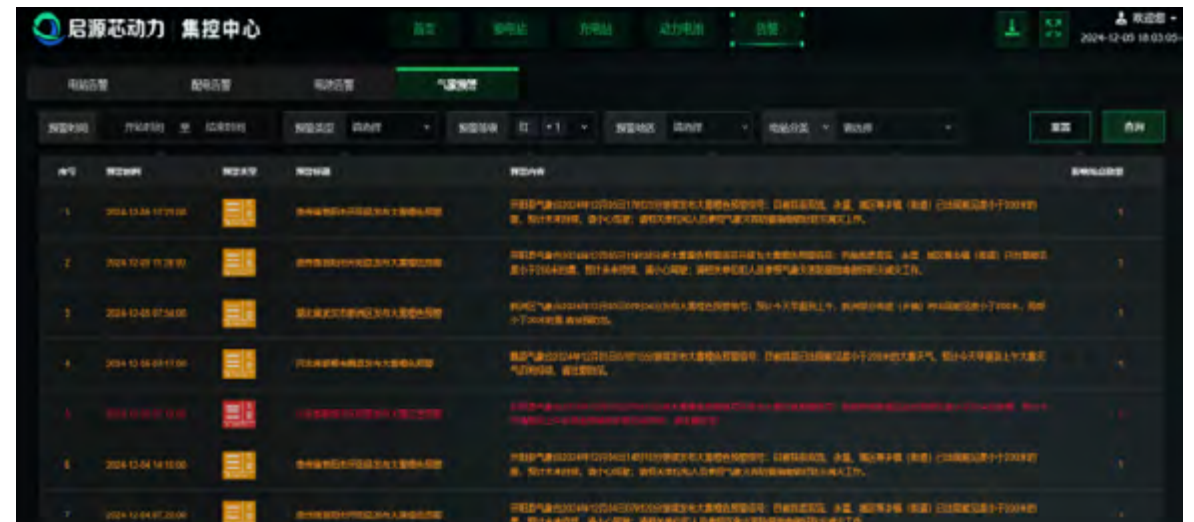


Anhui Company's Intelligent Monitoring System

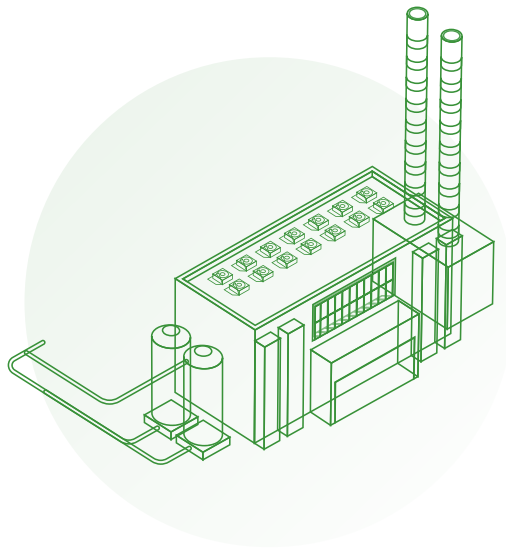


Qiyuanxin Power continues to develop and implement multiple technical measures for safety protection

In 2024, driven by the principles of scientific advancement, intelligence, and automation, Qiyuanxin Power introduced multiple safety protection technologies, including electronic fencing, one-click fire suppression, and power battery safety monitoring. The electronic fencing system uses video-based early warning algorithms to monitor unsafe incidents such as fires and unauthorized operations. The one-click fire suppression system isolates warning batteries through battery-swapping robots, effectively preventing thermal runaway incidents. Additionally, the company developed algorithms for wire rope and robot track condition recognition, comprehensively enhancing intrinsic equipment safety. These initiatives set a technological benchmark for the intelligent safety management of battery-swapping stations.



Central Control System



Intelligence-driven Business Development

China Power advances with full steam ahead digital transformation, empowering business development with smart technologies and accelerating the upgrade of traditional models toward intelligence, unmanned operations, and efficiency. The Company focuses on key areas such as new energy stations, power plant perimeter protection, and intelligent hydropower operation and maintenance. By innovating intelligent management platforms that integrate AI target recognition, intelligent inspection, and remote monitoring technologies, it optimizes equipment operation efficiency and management models. These efforts provide practical demonstrations for building an intelligent energy system and further drive the Company's high-quality development in the fields of new energy and intelligent operation and maintenance.



Anhui Company completed the research project on an intelligent unmanned perimeter protection system for power stations

In 2024, Anhui Company independently developed an intelligent unmanned perimeter protection system for power stations. By integrating smart security radar, AI target recognition technology, radar-vision fusion technology, and an intelligent alarm platform, along with high-definition cameras and audio-visual alarms, the company built a comprehensive, 24/7, near-zero false alarm perimeter protection system. This system effectively addresses the shortcomings of traditional security technologies, significantly enhancing the perimeter safety management of power stations and achieving intelligent, efficient, and unmanned operation. It provides an innovative demonstration for the safe operation and management optimization of power stations.



Intelligent Unmanned Perimeter Protection System for Power Stations



The first smart wind farm by Shandong Energy has been put into operation

In November 2024, the Shanghe Smart Wind Farm of Shandong Energy was officially launched. By integrating platforms and upgrading equipment, the farm established a model of unmanned duty, reduced inspection personnel, and remote operation. Leveraging intelligent inspection systems, robots, infrared cameras, and other equipment, it achieved automated inspection and real-time alerts. The inspection cycle was reduced from monthly to daily, significantly improving operation and maintenance efficiency and reducing work intensity. This initiative lays the foundation for the intelligent development of new energy stations.



Intelligent Inspection Patrol System



Wu Ling Power completed the development of an intelligent operation and maintenance system for hydropower

In 2024, Wu Ling Power completed the development of an intelligent operation and maintenance system for hydropower and established an operation and maintenance center. The system provides services such as remote inspection, real-time monitoring, and early warning for 13 power plants, effectively reducing on-site workload, promoting the upgrade of operation and maintenance models, and enhancing the company's intelligent technology capabilities in hydropower.



Intelligent Operation & Maintenance System for Hydropower

01

Responsible Governance Philosophy and Practices

China Power recognizes that robust governance is essential for achieving high-quality development. We are committed to continuously enhancing our corporate governance capabilities, strengthening risk management, and ensuring ethical and compliance operations. In addition, we are advancing our digital transformation, improving investor relations, and fostering a positive governance environment both internally and externally. Through these efforts, we aim to continuously enhance our governance value.

Indicator	Unit	2024	2023
Total number of business ethics training	time	6,730	453
Number of litigation cases regarding corrupt practices	case	0	0
Total tax payments	RMB billion	5.022	4.304

Responding to the Sustainable Development
Goals (SDGs) of the United Nations

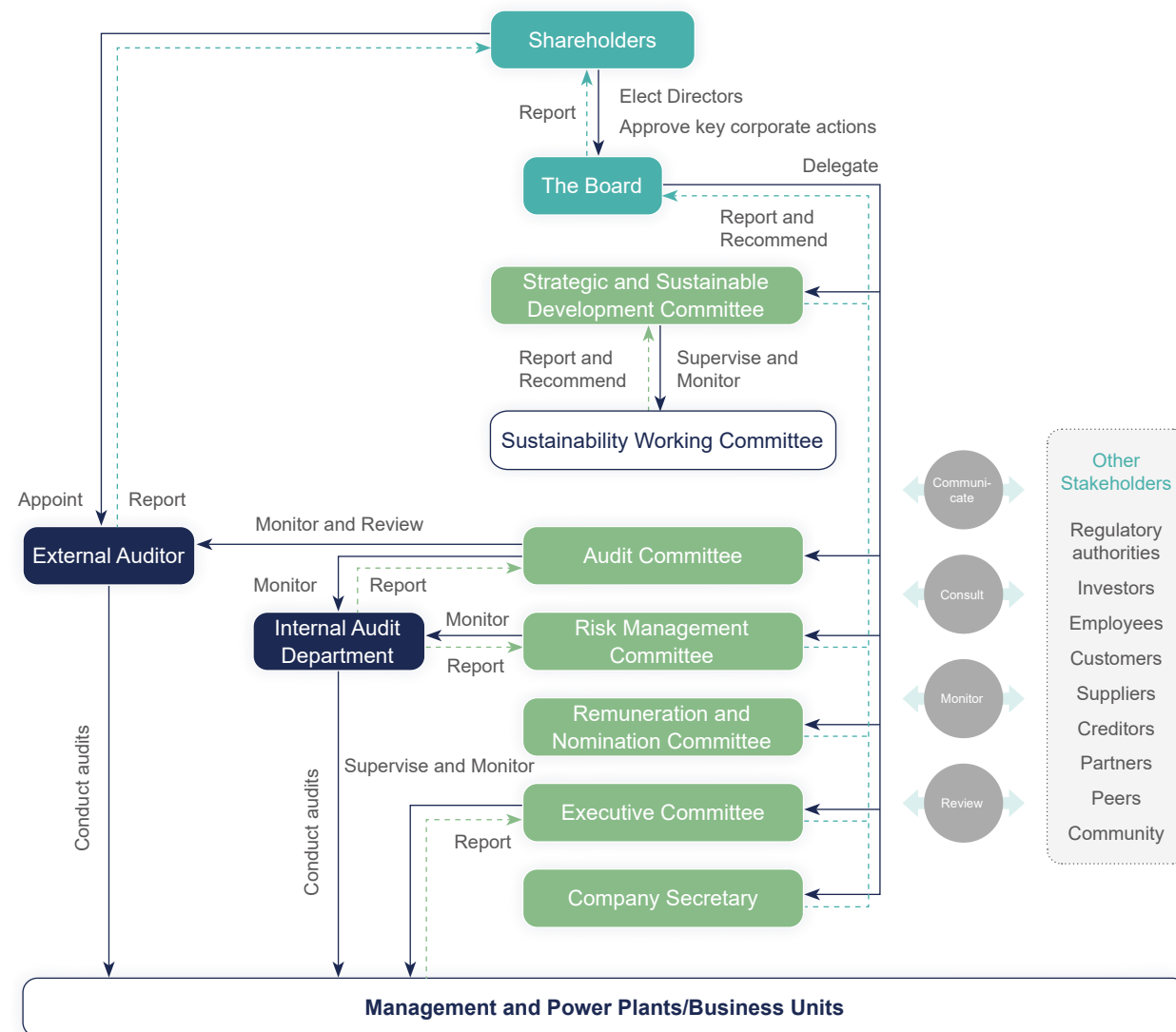


Corporate Governance

China Power places great emphasis on corporate governance, consistently adhering to laws, regulations, and regulatory requirements. The Company strictly complies with the relevant laws and regulations of its operating and listing jurisdictions, continuously improving its corporate governance framework and enhancing governance standards. We have established a standardized corporate governance mechanism, forming effective decision-making and supervisory processes to promote the healthy and stable development of the Company.

Governance Framework

We have established a governance framework composed of shareholders, the Board, five committees under the Board, and the management team. This structure ensures clear division of responsibilities and authority between ownership, decision-making oversight, and operational management, with each entity performing its role, maintaining checks and balances, and coordinating effectively.



Governance Framework

Regulated Governance

China Power has developed key policy documents, including the Board Working Rules and the Strategic and Sustainable Development Committee Working Rules to ensure the standardized and effective operation of the Board. The Board consists of 9 directors who exercise their authority in accordance with legal requirements, and diligently carry out their duties and responsibilities. They actively participate in Board meetings, and formulating the Group's development strategies and direction with the assistance and advice of its committees. The management team ensures that the decisions of the Board are accurately communicated and implemented.

Under the Board are five committees: the Strategic and Sustainable Development Committee, the Remuneration and Nomination Committee, the Audit Committee, the Risk Management Committee, and the Executive Committee. Since their establishment, these committees have fully leveraged their professional strengths, working in accordance with relevant laws, regulations, normative documents, and their respective procedural rules.

We place great importance on the diversity of our Board members. In 2013, the Board adopted a Board Diversity Policy, which is reviewed annually for its implementation and effectiveness. The selection and appointment of Board members consider multiple factors, including but not limited to gender, age, culture, educational background, ethnicity, professional experience, skills, knowledge and other characteristics, providing diverse perspectives and viewpoints for decision-making and ensuring the efficient and coordinated operation of the Board. The current members of our Board have extensive industry experience and academic backgrounds in areas including power technology and management, strategic planning and governance, finance and law. We also continue to provide training for directors to develop and update their knowledge and skills.

Board Composition

Name	Gender	Title	Committee(s)			Education background	Professional background				
HE Xi	Male	Chairman of the Board, Executive Director	1	3	5	Master's degree	A	B	C	E	
GAO Ping	Male	President, Executive Director	1	3	5	Master's degree	A	B	C	D	E
HU Jiandong	Male	Non-Executive Director				Master's degree	A	B			E
ZHOU Jie	Male	Non-Executive Director	1			Bachelor's degree	A	B		D	E
HUANG Qinghua	Female	Non-Executive Director				Master's degree	A	B		D	E
CHEN Pengjun	Male	Non-Executive Director				Master's degree		B	C	D	E
LI Fang	Male	Independent Non-executive Director	1	2	3	Juris Doctor (JD)		B	C	D	E
YAU Ka Chi	Male	Independent Non-executive Director	1	2	3	Professional diploma		B	C	D	E
HUI Hon Chung, Stanley	Male	Independent Non-executive Director		2	3	Bachelor's degree		B	C		E

Committee(s)

1	Strategic and Sustainable Development Committee	2	Audit Committee	3	Risk Management Committee	4	Remuneration and Nomination Committee	5	Executive Committee
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Professional background

A	Electric power industry experience	B	Strategic planning and governance	C	Global market experience	D	Accounting, finance and law	E	Risk and compliance
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Senior Management Composition

Name	Gender	Title	Education background
GAO Ping	Male	President	Master's degree
SHOU Rufeng	Male	Director(T)	Master's degree
TONG Yumei	Female	Vice President	Bachelor's degree
LV Keqi	Male	Vice President	Bachelor's degree
HU Xiang	Male	Chief Accountant	Master's degree
YANG Qian	Female	Vice President	Master's degree
GUO Feng	Male	Vice President	Master's degree

Company Secretary

Name	Gender	Title	Education background
CHEUNG Siu Lan	Female	Company Secretary	Master's degree



Board Meeting Data

Indicator	Unit	2024	2023
Number of Board meetings held	time	8	9
Attendance rate of Board meetings	/	95%	94%
Proposals considered by the Board	proposal	40	45
Dissenting votes by independent Directors	time	0	0
Abstaining from voting by independent Directors	time	0	0
Percentage of independent Directors	/	33.33%	42.86%
Meeting(s) of independent non-executive Directors	time	2	1
Meeting(s) of non-executive Directors	time	2	1
Audit Committee meetings	time	2	2
Remuneration and Nomination Committee meetings	time	2	2
Risk Management Committee meetings	time	2	2
Strategic and Sustainable Development Committee meetings	time	3	-
Executive Committee meetings	time	28	28



Compliance in Operations

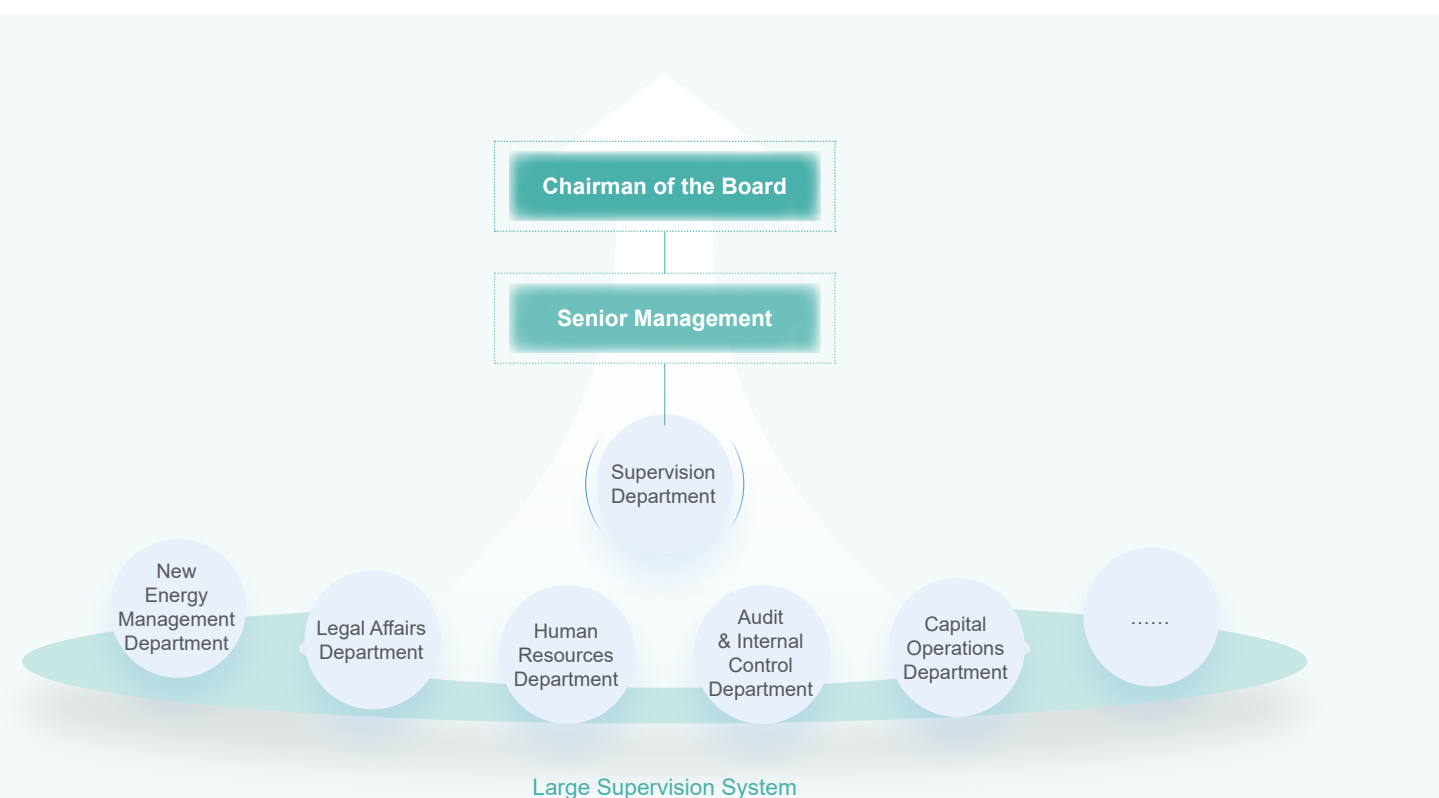
With a commitment to compliance operations, the Company has established a comprehensive supervision system, keeps the bottom line of business ethics, continuously optimizes risk management and internal control audit mechanisms, and fosters a clean and law-abiding corporate atmosphere. This ensures the Company's stable operation and continuous improvement in quality and efficiency.

Comprehensive Supervision

China Power continues to deepen its comprehensive supervision framework by establishing a 1+N large-scale supervision system. This system coordinates and strengthens the collaborative efforts of internal supervision forces, driving continuous improvements in corporate governance effectiveness. In accordance with the Large Supervision Work Guideline Manual, the Large Supervision Joint Meeting Rules, and the Implementation Rules for Sharing Large Supervision Results (Trial), among other systems, the Company has defined a Large Supervision joint meeting mechanism. This clarifies supervision processes, work scopes, and refines responsibility boundaries.

The Large Supervision joint meeting is convened by the Chair man of the Board with participation from senior management and key leaders across various departments and centers. The Supervision Department oversees the daily operations of the mechanism, taking charge of organizing and formulating the annual supervision plan, coordinating and integrating supervision resources, and leading the preparation of the annual comprehensive supervision work report.

The joint meeting is held biannually, where each member department reports on the progress of supervision affairs, issues identified, corrective suggestions, and any issues requiring discussion and resolution. A work summary and supervision plan for the following year are also produced annually. The mechanism fosters cooperation and coordination between departments, creating a unified command, comprehensive coverage, and shared responsibilities, thereby achieving collaborative supervision results and enhancing the quality and efficiency of joint supervision.



China Power's Large Supervision System Highlights 2024

- Two Large Supervision joint meetings were held, focusing on the Company's annual key tasks. These meetings coordinated the formulation of 18 project plans, including the commencement of new energy projects and engineering cost control supervision, and regularly monitored the implementation of matters decided in the joint meetings and project plans.
- The Large Supervision joint meeting approach has been optimized, shifting from a routine reporting form by functions to focusing on key issues in corporate transformation, development, and operational management. This includes risk alerts and targeted suggestions, such as leveraging legal functions for supervision and addressing key topics like preventing safety and environmental risks.
- A monthly and quarterly reporting mechanism for functional supervision has been established to effectively address the difficulties and bottlenecks identified during supervision and inspections.
- The application of Large Supervision results has been further deepened, with timely sharing of supervision information and driving the rectification of issues identified during supervision.



Business Ethics

China Power adheres to the principles of honesty and compliance as the benchmark for business ethics, actively advancing the construction of business ethics and steadily enhancing corporate behavioral standards (for details, please refer to the *Corporate Code of Conduct* under the ESG Issue Management section on the Company's website). Moreover, the Company is committed to deepening the business ethics management, defining violations such as bribery, bribery-like behaviors, corruption and interest conflicts, and clarifying the advocated and prohibited behaviors. The Board and its Audit Committee are responsible for overseeing business ethics and corruption issues. They require regular audits of business ethics standards at all operational sites every three years. The audit program covers all subsidiaries and includes aspects such as anti-corruption policies.

The Company adheres to the laws and regulations such as the Anti-Unfair Competition Law of the People's Republic of China, the Anti-Money Laundering Law of the People's Republic of China, the Prevention of Bribery Ordinance of the Hong Kong Special Administrative Region, and complies with the regulatory requirements of the listing jurisdiction. We are dedicated to conducting our operations with the highest ethical standards. To this end, we require all suppliers to sign an Integrity Agreement for Business Contracts prior to contract execution. This agreement mandates that suppliers and contractors strictly adhere to the anti-corruption requirements outlined therein throughout the duration of the contract, and its implementation is subject to supervision and inspection. Additionally, we have established an Employee Code of Conduct that requires all employees to comply with our business ethics standards with annual publicity and training. Any employee who violates these standards will face disciplinary action. We are committed to maintaining the principles of information confidentiality and firmly prohibit any practices that breach trust or promote unfair competition. We strictly prohibit involvement in illegal activities such as money laundering and/or insider trading. On one hand, we engage in business dealings with commercial partners who possess legitimate sources of funds and a reputable standing, closely monitoring their creditworthiness. We firmly prohibit any collaboration with partners without conducting compliance due diligence, including anti-bribery and anti-money laundering checks. On the other hand, we actively engage in anti-money laundering initiatives, forbidding employees from participating in any schemes or assisting in money laundering activities, or facilitating any actions suspected of money laundering.

We offer comprehensive business ethics training to all employees (including part-time and contract workers) and contractors. This training explicitly delineates our ethical standards and facilitates the effective application of compliance principles in daily operations. In 2024, we maintained a commendable record; no violations of business ethics—ranging from discrimination and harassment to conflicts of interest, money laundering, or insider trading—were reported. Furthermore, there were no internal disciplinary actions necessitated in this regard.

China Power's Performance on Business Ethics Training⁶



We strictly adhere to the Company Law of the People's Republic of China and other laws and regulations in the jurisdictions where we operate. We comply with all applicable anti-corruption laws and regulations both domestically and internationally, prohibit all forms of corruption and commercial bribery, and maintain a zero-tolerance stance toward corruption. We continuously optimize our integrity supervision system by formulating multiple internal regulations, such as the Management Measures for Integrity Records of Leaders. These documents provide detailed provisions on anti-corruption, supervision, and integrity education, ensuring the Company's healthy, stable, and long-term development.

Enhanced supervision and inspection

We integrate supervision and inspection into daily operations and business activities, and routinely conduct oversight on personnel selection and appointment. During the reporting period, the Company reviewed and responded to 88 integrity-related opinions, conducted 83 pre-appointment integrity talks, and provided integrity reminders to 234 employees in key areas such as engineering construction and strategic emerging industries. We organized newly appointed leaders, young overseas employees, and all bid evaluation personnel in critical positions to sign the Integrity Commitment Letter, continuously strengthening the ideological defense of integrity in professional conduct for key personnel. In 2024, we focused on the supervision and inspection of critical areas such as safe production and energy supply assurance. At the same time, we continued to strengthen oversight in key areas with concentrated authority and high capital intensity, such as tendering and procurement.

China Power's Anti-corruption Performance in 2023 and 2024



Number of litigation cases regarding corrupt practices

0

Corruption risk control

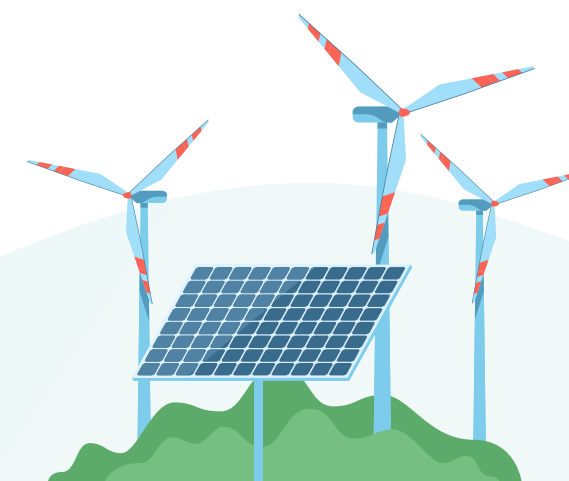
We implement rigorous measures to mitigate potential integrity risks and continuously enhance our integrity risk prevention and control system. Our systematic investigations focus on integrity risks within the financial sector, improving the establishment of the Integrity Risk Database for Financial Management. During the reporting period, we refined the list of small-scale powers, identified 609 integrity risk points, and improved 207 related policies. We also conducted targeted compliance inspections on procurement activities within strategic emerging industry companies, such as Xinyuan Smart Storage, where we uncovered 23 significant issues and prompted improvements to 9 management policies. In 2024, we revised China Power's Zero Tolerance issue list and handling protocols, closely monitoring major holidays and key milestones. Implementing routine prevention and control measures to address issues related to the improper acceptance or offering of gifts and cash.

Supplier integrity management

The Company is committed to implementing transparent procurement, requiring all suppliers to comply with the anti-corruption laws and regulations of their respective countries and regions. We have established anti-corruption policies and related mechanisms to verify compliance. We strictly maintain supplier admission criteria and a blacklist of suppliers involved in violations. We rigorously investigate and address any instances of bribery or attempts to gain benefits from the Company through unethical means (for details, please refer to the Responsible Procurement section of this report). During the reporting period, we added 6 contractors to the blacklist, which demonstrated our firm prohibition of all forms of corrupt practices.

China Power's Performance on Business Ethics Training for Contractors

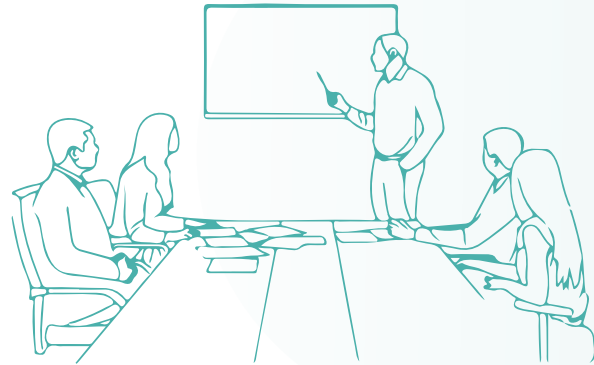
Indicator	Unit	2024	2023
Total number of business ethics training for contractors	time	5,924	4,817
Total hours of business ethics training for contractors	hour	2,966	2,890
Total participants in business ethics training for contractors	person-time	29,828	26,121
Total number of contractors covered by business ethics training	contractor	4,284	5,209



⁶ Statistical caliber changes in 2024 as the types of business ethics training have been diversified.

Anti-corruption education

The Company encourages a new norm for integrity culture, fostering an honest and clean corporate culture. We conduct diverse integrity education campaigns and training for all employees (including part-time and contract workers), ensuring that all employees understand relevant legal and regulatory requirements and cultivate a sense of integrity.



Whistle-blowing mechanism

We encourage individuals and organizations to proactively report any indications of violations of national laws, regulations, or the Company's internal policies. To facilitate this, we have published several internal documents, including the China Power Measures for Handling Reports and Complaints and the China Power Measures for Investigating False Accusations and Clarifying Unfounded Reports. We are committed to continuously improving our reporting and complaint procedures, safeguarding the rights of whistleblowers while thoroughly investigating false accusations and instances of malicious framing.

We provide multiple reporting channels, including website email, phone, and written correspondence, 24/7 supporting employees, suppliers, customers, and other third parties to objectively and truthfully report issues, and providing local language support in different regions. Furthermore, we also display the Guidance Map for Handling Petitions and Reports in Accordance with Regulations and Laws at reception areas, clarifying the handling process for reporting clues.

We respect and protect every whistleblower, rewarding those who provide real-name reports and accusations and help the Company recover significant economic losses. We also emphasize confidentiality to strictly prevent the leakage and dissemination of whistleblowers' personal information including name, organization and address, as well as the content of their reports. We strictly implement whistleblower protection measures, and oppose any form of retaliation. When necessary, we will pursue legal responsibilities by referring to judicial authorities in accordance with the law, committing to safeguarding the legitimate rights and interests of whistleblowers.

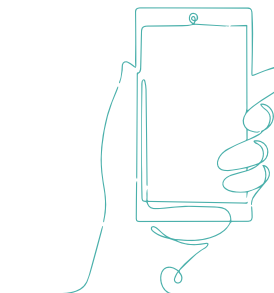
China Power's Whistle-blowing Channels

Telephone: (852) 2802-3911, (010) 6260-1726

Email: zgdljubao@cpibj.com.cn

Website: <http://www.chinapower.hk>

Address: Suite 6301, 63/F, Central Plaza, 18 Harbour Road, Wan Chai, Hong Kong; 56 North West Fourth Ring Road, Haidian District, Beijing, China



China Power's Anti-corruption Training Performance

Indicator	Unit	2024	2023
Total number of anti-corruption training conducted	time	565	505
Of which: Total number of anti-corruption training provided to Directors	time	6	6
Total number of anti-corruption training provided to employees	time	559	499
Total hours of anti-corruption training conducted	hour	2,817.5	2,049.0
Of which: Hours of anti-corruption training provided to Directors	hour	14.5	12
Hours of anti-corruption training provided to employees	hour	2,803	2,037
Total number of participants in anti-corruption training	person-time	37,798	52,589
Of which: Number of participants as Directors in anti-corruption training	person-time	14	16
Number of participants as employees in anti-corruption training	person-time	37,784	52,573



China Power held anti-corruption working meeting and education campaign

In March 2024, China Power held an anti-corruption work conference and education campaign, summarizing the anti-corruption efforts of 2023 and outlining key tasks for 2024. The Company integrated anti-corruption efforts into its overall development strategy, strengthened various oversight measures, and continuously upheld discipline and integrity. During the conference, participants watched anti-corruption case videos and were briefed on typical cases of internal disciplinary and legal violations. A total of 1,431 attendees completed the learning sessions, further solidifying the ideological defense line for integrity in professional conduct.



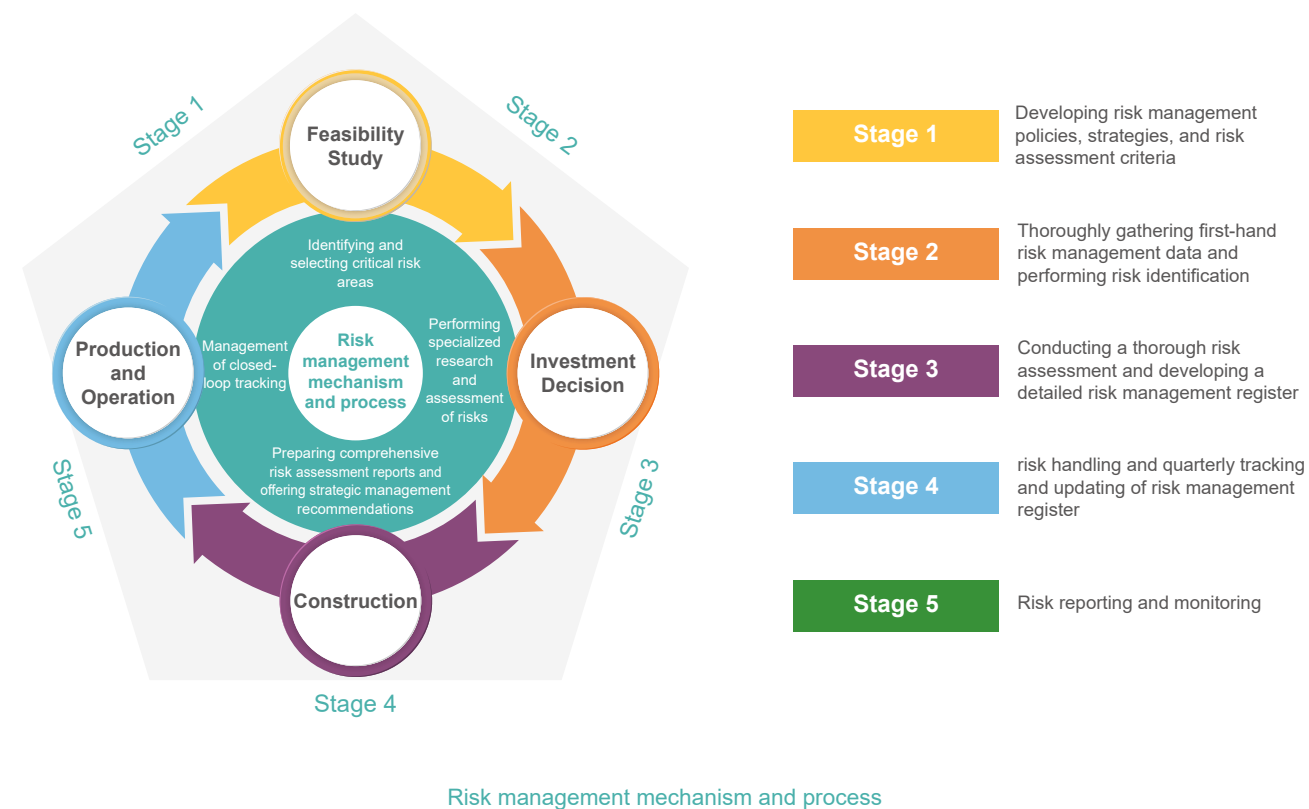
China Power's Anti-Corruption Working Meeting and Education Campaign

Risk Management

A sound and effective risk prevention and control system is the fundamental guarantee for the long-term stable operation of a business. In line with the business development characteristics of the Group, we have established a risk management system and continuously optimized the risk management framework, which includes the Risk Management Regulations and the Risk Assessment Implementation Rules. We integrate risk identification and prevention into business and decision-making management, comprehensively enhancing risk prevention capabilities. In 2024, we implemented targeted risk prevention and control measures by developing a “one business, one policy” framework for key risk management items. Furthermore, the Company places significant emphasis on the potential risks associated with climate change, actively incorporating these risks into our risk management system. We conduct thorough analyses of the potential impacts of climate change on our operations, supply chains, asset values, and other critical areas, leading to the development of tailored response strategies. These initiatives aim to proactively anticipate and effectively address climate change risks, ensuring the Company's sustainable development in an ever-evolving climate landscape while achieving a harmonious balance between economic growth and environmental sustainability.

Risk management framework

In alignment with the management standards set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) under the U.S. Anti-Fraud Financial Reporting Committee, the International Organization for Standardization (ISO), and the latest Three Lines Model introduced by the Institute of Internal Auditors (IIA), we have optimized our established Three Lines of Defense risk management framework. This framework encompasses business risk management, risk oversight and support, and independent verification. By integrating risk management with our strategic objectives, we have developed a more comprehensive and efficient system that balances proactive and defensive measures, ensuring robust protection against potential risks.



Risk control culture

We are committed to cultivating a high-quality risk control culture and actively enhancing the professional expertise and comprehensive capabilities of our audit and risk control teams. In 2024, the Company organized a training program for key audit and risk control personnel and conducted education campaign on job risk prevention and control guidelines. These efforts enhanced the professionalism of the risk control system and strengthened employees' risk prevention capabilities and awareness.

China Power conducted education campaign on job risk prevention and control guidelines

In October 2024, China Power organized an education campaign on the achievements and promotion of job risk prevention and control guidelines. The training aimed to provide a detailed interpretation of the job risk prevention and control guidelines released this year, helping employees from various departments deeply understand the guidelines and master risk prevention skills. The goal was to truly implement risk control management in practice. A total of 24 participants attended the training.



Education Campaign on Job Risk Prevention and Control Guidelines

China Power's Performance on Risk Control Training



Internal Controls

In accordance with relevant laws, regulations, and regulatory requirements, we have released policies and procedures such as the Internal Control Management Regulations and the Internal Audit Work Measures. These documents establish a clear and effective internal control management system and work procedures, enhancing management capabilities and risk prevention capabilities to ensure our high-quality development.

Internal control system

We continuously improve our corporate governance structure by establishing an internal control management system that vertically spans all levels and horizontally connects various departments. This system includes the Board, the Audit Committee, the Executive Committee, management, risk and internal control departments, and all employees, ensuring the soundness and effectiveness of internal control mechanisms and standardized operations of the Company.

Internal control and audit

We have established and continuously optimized a comprehensive internal control audit and rectification mechanism that operates as a fully closed loop. Over the past three years, we have achieved complete audit coverage of all subsidiaries. In 2024, we further refined this audit rectification mechanism, focusing on institutionalization, standardization, and the long-term effectiveness of our corrective efforts. Notably, we improved the internal control evaluation system, enhancing the rectification process for issues identified through the audit digital intelligence system. This has significantly improved the efficiency of our internal control measures across multiple dimensions. In 2024, the Company's internal audit identified 530 issues. By the end of the year, 382 of the identified issues had been corrected, with a correction rate of 72%.

Internal control and audit training

We are committed to actively providing internal control audit training and strengthening the development of our internal control audit team. We encourage employees to familiarize themselves with internal control audit principles and practices. To support this initiative, we share high-quality resources, such as articles like Happy Audit, within departmental groups, fostering an environment that enhances professional competency in internal control auditing. In 2024, we conducted hands-on training on internal controls, organizing employees to participate in on-site internal control evaluation training at 6 subsidiaries, including Yaomeng Energy, China Power Dabieshan, and Fuxi Power Plant. These practical experiences help improve capacity building in internal control and audit.

China Power's Performance on Audit and Internal Control Training

Indicator	Unit	2024	2023
Total hours of risk control related training	hour	2,922	803
Total number of participants in risk control related training	person-time	885	144

Regulatory Compliance

We prioritize compliance with laws and regulations as the cornerstone of our corporate operations. By continuously enhancing our legal compliance framework, we promote the seamless integration of legal risk prevention, compliance management, and legal oversight. As a result, our capabilities in law-based governance have steadily improved, and the effectiveness of our compliance operations has become increasingly evident.

Compliance management system

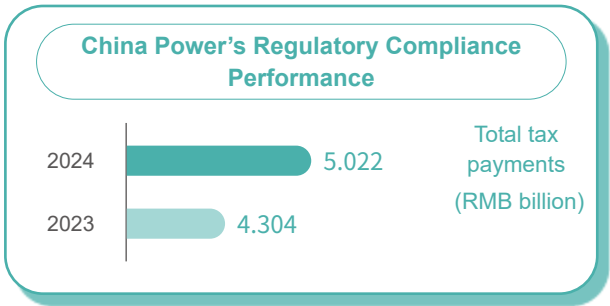
We have developed a comprehensive, efficient, and collaborative compliance management framework that encompasses the Board, the Audit Committee, the Executive Committee, management, business units, compliance management departments, and all employees. Additionally, we have implemented and refined various policies, including the Compliance Management Regulations, the Regulations for Building a Law-based System, and the Legal Affairs Management Measures, significantly enhancing our compliance management standards.

Optimized compliance management

Based on the Company's actual circumstances, we have implemented strict compliance reviews for core areas such as internal policies, economic contracts, and major decisions made by various governance bodies. The compliance review process is seamlessly integrated into deliberation processes such as investment coordination meetings, president's office meetings, and executive committee meetings, ensuring that compliance requirements are fully considered and effectively implemented throughout the decision-making process. Additionally, we continuously strengthen preemptive control in legal reviews to prevent dispute risks. We have completed the compilation of review guidelines for contract terms, company policies, and articles of association, ensuring regular updates, to fully safeguard the Company's legal rights and interests.

We actively address new legal issues and compliance challenges arising from the development of new energy, by compiling the Legal Compliance Review Guidelines for New Energy Projects. Tailored to the characteristics of strategic emerging industries, we have customized legal protection mechanisms to enhance the effectiveness of compliance risk prevention, safeguarding industrial transformation and upgrade.

We actively advance the resolution of legal disputes, by creating dedicated mechanisms for historically outstanding legal disputes. By comprehensively utilizing litigation, arbitration, mediation, and settlement means, we effectively safeguard the Company's legal rights and interests.



China Power's Key Tasks on Compliance Management 2024

Prepared compliance guidance	Adhering to the principle of "where business needs arise, legal support follows", we have compiled and issued 10 compliance guidelines covering areas such as new energy projects and strategic cooperation agreements, providing comprehensive legal support for our operations.
Advanced inspection and research	We conducted inspection and research activities at multiple subsidiaries, including Xinyuan Smart Storage and Shentou Power Plant II, addressing identified compliance gaps and management loopholes. We promptly provided compliance recommendations to prevent potential compliance risks.
Enhanced law-based governance system pertaining to foreign affairs	We formulated a pilot plan for governance of foreign-related legal affairs, focusing on key areas such as overseas commissions and cross-border corruption to strengthen compliance and improve the organizational structure for foreign-related compliance.
Played a role in preparation of national laws and industry standards	We participated in legislative consultation for the Electricity Law of the People's Republic of China and the Renewable Energy Law of the People's Republic of China (Draft), and contributed to the compilation of the Guidelines for Evaluating the Effectiveness of Compliance Management Systems in Power Enterprises by China Electricity Council, thereby expanding the influence of legal compliance of China Power.
Set up regional legal sub-centers	We established 3 regional legal sub-centers, achieving full coverage of legal support for subsidiaries and forming a sound mechanism for cultivating legal talent.

Tax compliance

China Power complies with tax regulations of its operating jurisdictions by establishing a comprehensive tax system that standardizes tax operations, ensures accurate calculations, and guarantees timely reporting and payment of various taxes and fees. We are committed to upholding strict tax compliance principles. Additionally, we enhance our tax planning initiatives through the development of the R&D Expense Deduction Operation and Management Manual, as well as the Tax Planning Manual for New Energy Enterprises, gradually establishing standardized tax management processes. By strategically leveraging policy incentives, we optimize corporate benefits while ensuring full tax compliance.

Legal culture building

We place great emphasis on cultivating employees' awareness of law-based governance and fully advancing the compliance culture. In 2024, we organized multi-level legal and compliance training aligned with legislative developments and business needs. We collaborated with various departments to conduct compliance training activities on topics such as work safety and environmental protection. We launched targeted training programs to ensure that the concept of law-based governance is deeply ingrained and the compliance culture takes root.

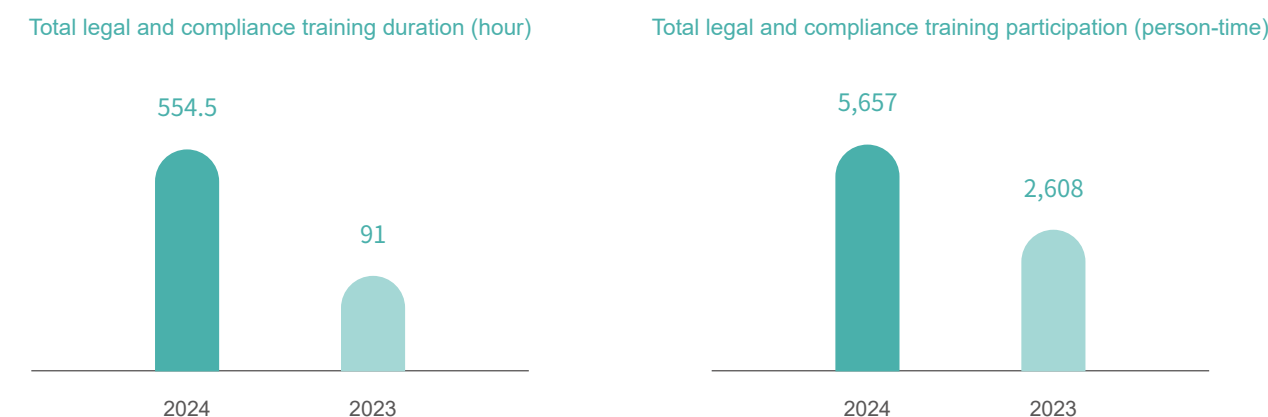
China Power conducted compliance training on the implementation of the new Company Law of the People's Republic of China

Following the release of the new Company Law of the People's Republic of China, China Power promptly compiled interpretation materials and updated compliance guidelines. In July 2024, we organized compliance training on the implementation of the new Company Law, focusing on the top ten risks to business operations and management after the law's revision. The training ensured that employees accurately understood the requirements of the new law, enhancing their legal literacy and awareness.



Compliance Training on the Implementation of the New Company Law of the People's Republic of China

China Power's Performance on Legal and Compliance Training



Digital Transformation

We have accelerated our digital construction and development efforts, achieving significant breakthroughs and upgrading intelligent system operations to enhance business efficiency through digital transformation. Concurrently, we are reinforcing our information security measures by elevating our management standards, ensuring the continuity and stability of the Group's production and operations.

Digital Development

We comprehensively and deeply advance the digital transformation process by continuously enhancing data governance efficiency, and building intelligent platforms. This aims to drive industrial digital transformation, and promote the Company's sustained and steady development.

China Power's Performance on Digital Development 2024



Investment into digital transformation

357,656 RMB'000

Digital and intelligent systems

We are accelerating the implementation of intelligent financial systems, advancing the construction of the Enterprise Resource Planning (ERP) system, and continuously deepening the achievements of financial digital transformation. This has enabled systematic upgrading of financial management, digital upgrading of business and financial information, and intelligent upgrading of decision-making.

Achievements in China Power's Intelligent System Development 2024

Strengthening the implementation of intelligent financial systems

- The blueprint design and consultation phase for the intelligent financial system has been completed. The project has been smoothly transitioned to the implementation phase. It is planned to complete the launch of the first batch of units in the pilot phase by April 2025, driving the enhancement of the financial system's intelligence level.

ERP system migration

- The ERP system migration is progressing smoothly. Tasks such as requirement research, gap analysis, blueprint design, and unit testing have been completed, entering the system realization phase. This information-based system promotes collaborative financial management.

Industrial digital transformation

We are fully advancing the digital upgrading of the industry, accelerating data building for the thermal power industry, and achieving real-time monitoring and situation analysis of coal power, environmental power, and gas turbine power plant data. This enhances the information-based management level of the thermal power industry and improves operational efficiency and safety.

We fully leverage the advantages of centralized management and transmission at our Suzhou Data Center, by implementing a comprehensive plan for the collection of hydropower and thermal power data. This initiative enables unified control over production data. In 2024, we promoted the launch and operation of the Suzhou Intelligent Operation and Maintenance Platform, providing support for professional and intelligent management of new energy stations. We also completed the annual intelligent transformation and construction tasks for 3 stations, improving unit efficiency through intelligent construction and refined operational management.



Cybersecurity and Privacy Protection

China Power is dedicated to establishing a secure corporate network that protects both user information and corporate information. By enhancing our information security management, optimizing our technology and operations, and bolstering information security education, we are continually elevating our information security standards.

Cybersecurity management mechanism

Regarding cybersecurity, China Power follows a localized management approach and operates a tiered responsibility system. We have established a dedicated cybersecurity and informatization leadership group that takes charge of decision-making and oversight in cybersecurity matters. The leadership group oversees an office responsible for decision execution, coordination, and cross-departmental and cross-unit cybersecurity safeguarding efforts. The primary leaders of each subsidiary's management serve as the first responsible persons for their unit's cybersecurity, while the management members in charge of cybersecurity are the direct responsible persons.

We strictly comply with laws and regulations such as the Cybersecurity Law of the People's Republic of China, the Data Security Law of the People's Republic of China, and the Personal Information Protection Law of the People's Republic of China, and have formulated internal policies such as the Cybersecurity Management Regulations, the Management Measures for Classified Information Systems and Classified Computers, and the Information System Security Management Measures. In 2024, we developed the Guidelines for Cybersecurity at Overseas Units, clarifying the work procedures for overseas cybersecurity.

Cybersecurity management certification

We are dedicated to enhancing our information security management by actively pursuing certification for classified protection. By using external benchmarks, we aim to elevate our standards. In 2024, a total of 82 project units successfully completed classified protection evaluations for 113 systems.

Classified protection evaluation is a process carried out by accredited evaluation agencies, in accordance with the Information Security Classified Protection Management Measures and their associated standards. This evaluation involves thorough testing and assessment of the security classification and protection status of information systems. It plays a vital role in enhancing the information security protection capabilities of these systems.

Cybersecurity management measures

We closely monitor the cybersecurity landscape and continuously optimize the cybersecurity protection framework. We have revised the Network and Information Security Emergency Response Plan which clarifies the trigger conditions for emergency response plans and standardizes the handling procedures for emergencies. After a security incident occurs, members of the emergency office and response team must maintain 24-hour communication, follow the established steps such as emergency activation, initial response, graded warnings, and announcements to promptly propose solutions.

We regularly conduct cybersecurity emergency drills to strengthen our overall capabilities in protecting against cyberattacks and responding to security incidents. In 2024, We participated in the network security attack and defense drills organized by external institutions and internally organized border firewall emergency drills to comprehensively test the effectiveness of network security protection measures by simulating hacker attacks and other scenarios; we performed on-site cybersecurity inspections at several new energy stations and supervised each station to carry out self-inspections and implement necessary rectifications. This proactive approach has effectively mitigated potential cybersecurity risks. During the reporting period, the Group did not experience any information or data breaches or cybersecurity incidents.

We prioritize the balance between security and development, actively advancing self-developed alternatives to mitigate the risks posed by external technological blockades and cyberattacks. This approach effectively safeguards the security of our data and information assets. During the reporting period, we upgraded 28 production and operation systems within the new energy sector to utilize domestic applications, achieving an impressive annual procurement ratio of 84% for newly added domestic products in our network and information infrastructure.

Information security training

We organize regular cybersecurity training and skill competitions for all employees to enhance employees' awareness and skills in cybersecurity and information security, reduce security risks caused by human factors such as operational errors, and strengthen the Company's cybersecurity defenses. In 2024, China Power employees won two third prizes for individuals and one excellence award for individuals at the Blue Shield Cup National Cybersecurity Competition on Employee Skills.



China Power organized cybersecurity offense and defense training and competition

In September 2024, China Power's 2024 cybersecurity offense and defense training and competition concluded successfully at Changshu Electric Power. The training covered basic network knowledge, cybersecurity technologies, classified protection and other areas, aiming to select and cultivate cybersecurity talent and strengthen the team.

2024年中国电力“建功创一流”网络安全攻防技能竞赛				
开始时间: 2024-09-27 08:56		已结率		
个人排名(实时)		晋级名额 (数量限制内: 25)		
排名	用户	得分	晋级数	总分
1	陈松	186	186	963
2	陈松	186	186	963
3	李翔	170	170	909
4	高宇宇	172	172	903
5	周浩然	172	172	901
6	周浩然	167	167	893
7	吴玉	161	161	861
8	刘国栋	163	163	861
9	杨帆	175	175	820
10	孙楠	156	156	761
11	周博	177	177	764
12	周博	179	179	711



Cybersecurity Offense and Defense Training and Competition

China Power's Performance on Information Security

Indicator	Unit	2024	2023
Total number of incidents of violations of cybersecurity regulations	case	0	0
Total number of times for information security training	time	38	42
Total hours of information security training	hour	1,066	397.5
Total number of participants in information security training	person-time	1,649	5,868



Investor Responsibility

China Power maintains active engagement with investors and has developed and implemented comprehensive Investor Relations Management Measures. By enhancing transparency in its information disclosure, strengthening the management of related-party transactions, and increasing investors' understanding and recognition of the Company, China Power safeguards the legitimate rights and interests of investors, creditors, and other stakeholders. This approach fosters long-term, stable relationships between the Company and its investors.

Information Disclosure

Information disclosure is the primary channel for investors to understand a listed company's governance structure, financial status and operational management. As a listed company, we strictly comply with the Hong Kong Stock Exchange's Listing Rules and our Statutory Information Disclosure Management Measures, ensuring the compliance, timeliness, accuracy, and completeness of all statutory information disclosures. We continuously improve internal disclosure mechanisms, conduct disclosure training, and excel in information disclosure efforts.

We understand that sustainability reporting is a crucial component of non-financial information disclosure for listed companies. To address public concerns about the our ESG-related non-financial information, we precisely compile and publish sustainability reports, providing investors with detailed evidence to assess our non-financial risks and sustainability potential.

Related-party Transactions

We continuously enhance our management of related-party transactions, strictly adhering to established decision-making procedures and disclosure obligations. Our Audit and Internal Control Department, acting on behalf of the Audit Committee and in accordance with the Listing Rules, supervises the execution of the Company's continuing related-party transactions. This department conducts quarterly reviews to ensure compliance, which effectively improves the Company's operational standards and safeguards the legitimate rights and interests of both the Company and its shareholders. In 2024, we invited an external auditors to provide assurance on these continuing related-party transactions, following the Hong Kong Standard on Assurance Engagements 3000 (Revised) and other regulatory requirements, and received a letter indicating an unqualified opinion.

Rights and Interests of Shareholders

We actively safeguard shareholder interests by continuously improving corporate governance, strengthening internal controls, and taking other measures to promote the sustainable development of our operations and business practices. We respect the interests of investors, particularly minority shareholders, and strive to achieve a win-win goal of stable growth in both Company development and investor returns.

We build proactive investor relations, engage in extensive diverse communication with investors through emails, phone calls, video conferences, hosting visits and inquiries from investors and research institutions, holding press conference after release of financial results, participating in strategy meetings, roadshows and reverse roadshows, etc. This enhances the transparency of our operations and ensures that investors have equal opportunities to access our information.

The Company consistently fosters strong communication with a diverse range of investors, both domestically and internationally, enhancing its image and influence in the capital markets. In 2024, the Company convened one general meeting of shareholders to review seven proposals, conducted 126 formal investor meetings, participated in more than 40 strategy meetings with domestic and international securities firms, and engaged with over 1,340 investor representatives.



China Power held 2024 Interim Results Announcement

In August 2024, China Power held its 2024 Interim Results Announcement in Hong Kong, with approximately 200 investors and analysts participating onsite or online. Institutions such as Ping An Asset Management, Citibank, Huatai Securities, and HSBC actively raised questions focusing on hydrological conditions, new energy electricity prices, and coal power's "two prices and one volume". The management actively addressed all questions, with the meeting harvesting great results.



China Power's 2024 Interim Results Announcement



China Power organized a field visit of institutional investors to Sanbanxi Hydropower Station

In June 2024, China Power organized a field visit to the Sanbanxi Hydropower Station for 10 institutional investors, including Bank of China Fund, ICBC Credit Suisse, and Chengtong Fund. Investors toured the power station's facilities and engaged in in-depth discussions on production and operations, cascade-style scheduling, and market trading. This visit deepened investors' recognition of the Company's operational advantages and market value in the hydropower sector.



Field Visit of Investors at Sanbanxi Hydropower Station

China Power's Performance Investor Responsibility

Indicator	Unit	2024	2023
Announcements issued	announcement	70	84
Total number of general meetings	time	1	2
Expected number of directors attending the general meetings	person-time	7	14
Actual number of directors attending the general meetings	person-time	7	13
Number of proposals considered at the general meetings	proposal	7	12
Number of investor engagement activities	time	126	130

Rights of Creditors

While committed to maximizing shareholder value, we continuously enhance our institutional framework for asset and fund management, strengthen financial risk controls, and ensure the safety of our assets and funds. Concurrently, we uphold the principles of responsible credit cooperation, utilize funds in accordance with loan agreements, and consistently repay principal and interest in full and on time. The Company has never compromised its creditors' interests and, throughout the reporting period, maintained a robust credit profile, achieving a bond credit rating of AAA. Furthermore, we received an unqualified audit opinion from the external auditor for our 2023 Annual Report.

02

Green Development

Environmental Responsibility and Commitment

China Power is committed to addressing the challenges of global climate change in alignment with the Dual Carbon goals. We implement strategies for low-carbon transformation and sustainable development, actively promoting energy conservation and emission reduction. Through these practical efforts, the Company plays a vital role in constructing a clean, low-carbon, safe, and efficient energy system.

Indicator	Unit	2024	2023
Investment into ecological and environmental protection	RMB billion	0.594	0.176
Thermal power net coal consumption rate	g/kWh	291.99	292.59
Greenhouse gas emissions (Scope 1 and Scope 2)	tCO ₂ e	50,302,013	49,103,301
Direct greenhouse gas emissions (Scope 1)	tCO ₂ e	49,876,065	48,805,239
Indirect greenhouse gas emissions (Scope 2)	tCO ₂ e	425,948	298,062
Scope 3 greenhouse gas emissions (Business travels)	tCO ₂ e	9,887	-

Responding to the Sustainable Development Goals (SDGs) of the United Nations



Coping with Climate Change

China Power is dedicated to actively addressing climate change and fully complies with the climate information disclosure requirements of the Hong Kong Stock Exchange. The Company aligns its practices with the ISSB (IFRS S1 and IFRS S2) and TCFD frameworks to effectively identify climate-related risks and opportunities. We have established a robust governance framework, optimized our response strategies, and strengthened risk management processes. Additionally, we have set ambitious targets for reducing greenhouse gas emissions and continually evaluate their effectiveness. These comprehensive efforts significantly enhance our climate change management capabilities and contribute to the achievement of our corporate sustainability goals.

Climate Governance System

China Power attaches great importance to the governance and disclosure of climate-related risks and opportunities. The Company has released the Environmental, Social, and Governance Management Regulations (Trial), the Strategic and Sustainable Development Committee Working Rules, and the Sustainability Working Committee Work Rules, integrating climate risk management into the ESG system. It has established a climate governance organizational structure centered around the Board, the Strategic and Sustainable Development Committee, the Sustainability Working Committee, and subsidiaries. This structure clarifies responsibilities, solidifies accountability by level, and promotes the standardized and efficient implementation of climate governance efforts.

Climate Governance Structure



The Company has a multi-layered climate monitoring mechanism in place to ensure the transparency and standardization of climate information disclosure. Annually, the Company conducts a comprehensive materiality assessment to identify important climate-related issues through the process of issue identification, ranking, review, approval, and disclosure. The Strategic and Sustainable Development Committee and the Sustainability Working Committee hold at least two meetings annually to summarize progress and report to the Board, dynamically adjusting climate management strategies against uncertainties brought by climate change.

The Company is committed to enhancing the professional capabilities of personnel involved in managing climate-related risks and opportunities. It ensures that both the management and employees possess adequate skills and resources to execute climate governance policies, regularly organizes climate governance training, engages external experts for technical guidance, and strengthens internal awareness of climate governance, supporting the achievement of sustainable development goals.

Strategies against Climate Change

Identification of climate-related risks and opportunities

In accordance with the Implementation Guidance for Climate Disclosures under HKEX ESG reporting framework, we refine the climate risk management process. By referencing the TCFD framework, we conduct analyses from the perspective of climate-related risks, opportunities, and financial impacts. We have divided the time frames into short, medium, and long term based on the national Dual Carbon goals and the Company's green and low-carbon transformation pathway. Through means including data analysis, management interviews, and internal discussions, and given risk scoring, we assess and prioritize various climate risks, formulate targeted response measures and develop a list covering transition risks and physical risks. This enhances our ability to address climate change.



Identification of and Response to Transition Risks

Risk Type	Timeframe	Risk description	Potential opportunity	Potential financial impacts	Response strategy
Policies and laws	Short-term: 2025-2030	<ul style="list-style-type: none"> The State Council has released the Action Plan for Carbon Dioxide Peaking Before 2030, and the Ministry of Ecology and Environment has issued the Interim Measures for Carbon Emission Trading Management and other relevant regulatory documents, reflecting changes in national policies and requirements. 	<ul style="list-style-type: none"> Opportunities for clean energy development: With increasing restrictions and controls on carbon emissions, the Company is presented with the opportunity to increase investments in and development of clean energy, such as wind and solar power, to meet the demands of a low-carbon economy. Participation in carbon trading markets: Carbon emission trading provides the Company with new business opportunities and generates additional revenue. 	<ul style="list-style-type: none"> Impact on business presence: The dual-control policy on energy consumption varies across regions, requiring the Company to adapt to local conditions and optimize its business and asset portfolio. Increased compliance costs: The Company must allocate more resources to comply with increasingly stringent regulatory requirements and implement higher-quality information disclosure. Increased operational costs: Tighter climate regulatory policies and higher carbon pricing further constrain the environmental requirements for the Company's development projects. 	<ul style="list-style-type: none"> Gradually adjust the share of coal-fired power generation to new energy power generation, implementing coal-power joint operations. Deploy strategic emerging industries, promote the development of integrated energy, energy storage, and green transportation, exploring new territories. Formulate and implement emission reduction strategies while closely monitoring carbon pricing mechanisms both locally and globally, and meanwhile actively conduct feasibility studies on the Company's internal carbon pricing scheme and explore related mechanisms. Build a robust data management system to support high-quality carbon emissions reporting. Through transparent disclosure, we improve international climate-related evaluations, and enhance corporate image and credibility.
Market and technology	Short-term: 2025-2030; Medium-term: 2030-2035	<ul style="list-style-type: none"> The market demands products and services with lower carbon emissions; There are strict requirements for the clean transformation technologies of existing coal-fired power plants; The technical requirements for the stable integration and absorption of new energy into the grid are high; Energy storage technology development faces constraints; The rules for power spot market trading are evolving; Carbon trading requirements are becoming more stringent. 	<ul style="list-style-type: none"> Technological innovation-driven opportunities: Low-carbon-oriented market and technical requirements are accelerating the technological innovation process. New market opportunities: Government policies entail subsidies and other opportunities. 	<ul style="list-style-type: none"> Promoting asset appreciation: Through the development of innovative technologies and the acquisition of related patents, the Company will enrich its intangible assets, while technological breakthroughs will help extend the lifecycle of fixed assets. Increased R&D costs: Costs are rising in emerging fields such as transformation to eco-friendly technologies, new energy integration technologies, and energy storage technologies. Increased costs for professional talent development: Talent is the foundation of technological innovation, and the Company needs to build and cultivate a team of technical professionals to excel in emerging fields. 	<ul style="list-style-type: none"> Strengthen IUR collaboration, and carefully select technological pathways for low-carbon transformation. Promote the combined application of energy storage with distributed and centralized new energy power generation; Enhance employee professional training to improve their technological innovation capabilities. Actively allocate resources in the new energy power generation sector, and increase the proportion of new energy power generation to meet market demands. Conduct feasibility studies and cost-benefit analyses on various low-carbon technologies, and establish a reasonable cost management system.
Reputation	Medium-term: 2030-2035; Long-term: 2035-2060	<ul style="list-style-type: none"> Environmental regulatory penalties may lead to skepticism from market investors; Extreme weather events causing power-related incidents may trigger negative public opinion. 	<ul style="list-style-type: none"> Reputation management and rebranding: These challenges prompt the Company to place greater emphasis on reputation management, and provide opportunities for rebranding. The Company can take greater environmental and sustainability measures to enhance its public image. 	<ul style="list-style-type: none"> Negative environmental information can harm the Company's reputation in the capital market. If the Company is subject to environmental regulatory penalties or experiences relevant incidents, it may impact its financing in the capital market. 	<ul style="list-style-type: none"> Strengthen investor relations management, ensure investors' right to be informed, and enhance the timeliness of information disclosure. Activities such as open-days can be held to strengthen communication with society and increase public understanding of the Company. Follow sustainable development strategies, enhance environmental management awareness and improve environmental management systems.

Identification of and Response to Physical Risks

Risk Type	Timeframe	Risk description	Potential opportunity	Potential financial impacts	Response strategy
Acute risk	Short-term: 2025-2030; Medium-term: 2030-2035	<ul style="list-style-type: none"> Extreme weather events such as floods, typhoons, and droughts. 	<ul style="list-style-type: none"> Explore new markets: Develop and invest in disaster management emergency systems to create new business opportunities. 	<ul style="list-style-type: none"> Frequent extreme weather events may lead to increased operational costs. On one hand, extreme weather can cause damage to assets in the new energy sector, reduce power generation, and damage equipment, thereby increasing maintenance and operational costs. On the other hand, extreme weather may affect upstream fuel suppliers, raising the supply chain management costs for thermal power operations. Frequent extreme weather events may increase employee-related costs. Prolonged extreme cold or heat may lead to higher subsidies and care expenditures for on-site workers. 	<ul style="list-style-type: none"> Strengthen climate-related risk identification and management, actively collaborate with meteorological agencies, improve emergency plans and emergency management capabilities. Ensure proper equipment maintenance and promptly repair damaged equipment after extreme weather events. Enhance management training for suppliers, and create emergency plans for special circumstances. Enhance employee capabilities for emergency response and allocate additional resources to ensure the safety of employees during extreme weather conditions.
Chronic risks	Medium-term: 2030-2035; Long-term: 2035-2060	<ul style="list-style-type: none"> Global warming; Rising sea levels. 	<ul style="list-style-type: none"> Develop low-carbon energy: Global warming has driven increased demand for low-carbon and zero-emission energy worldwide. 	<ul style="list-style-type: none"> Climate change increases management costs. Rising sea levels may lead to the damage of some power facilities, increasing infrastructure costs. Water resource damage may result in insufficient cooling water supply for hydropower stations and other power generation facilities, increasing operational costs. In the long term, this may affect the stability of power generation operations and increase management costs. 	<ul style="list-style-type: none"> Allocate different types of assets to diversify risks. Use climate models to assess the future operational adaptability of projects and physical assets to extreme climate conditions.

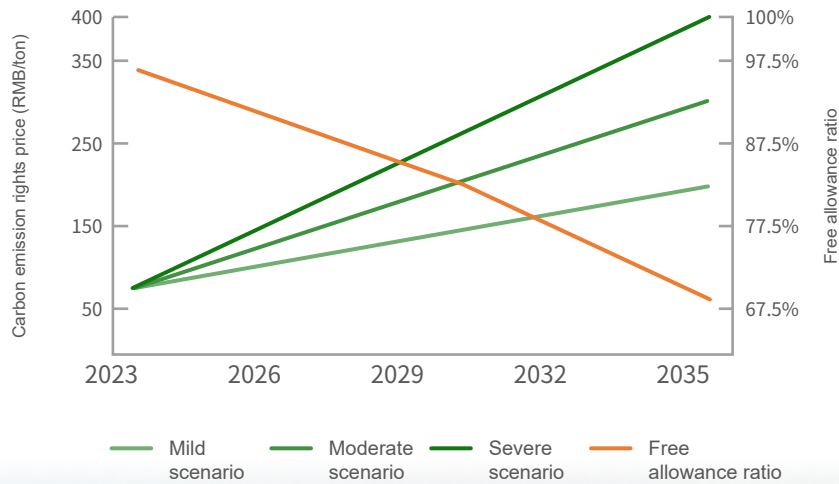
Climate resilience

To effectively evaluate and cope with climate-related risks and opportunities, China Power, in line with policies and industry trends, conducts climate risk scenarios analysis and climate stress tests. By simulating different climate scenarios, the Company assesses the potential impacts of transition risks and physical risks on its operations and finances.

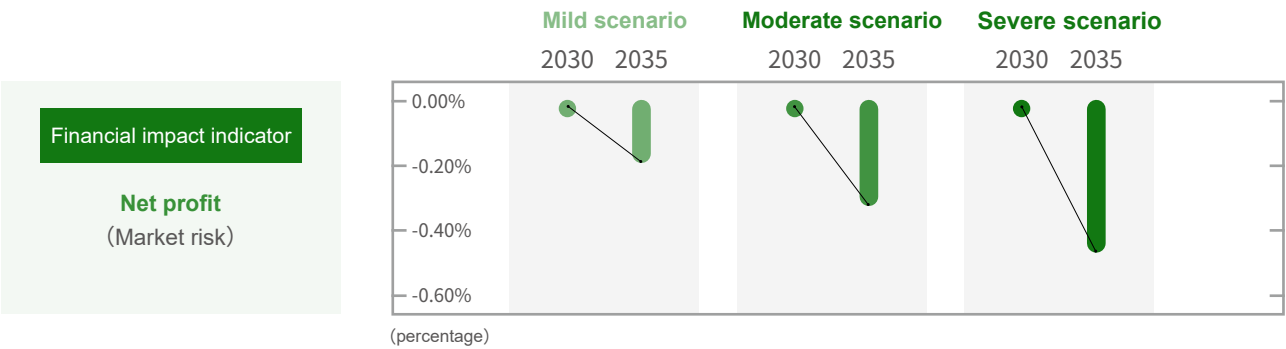
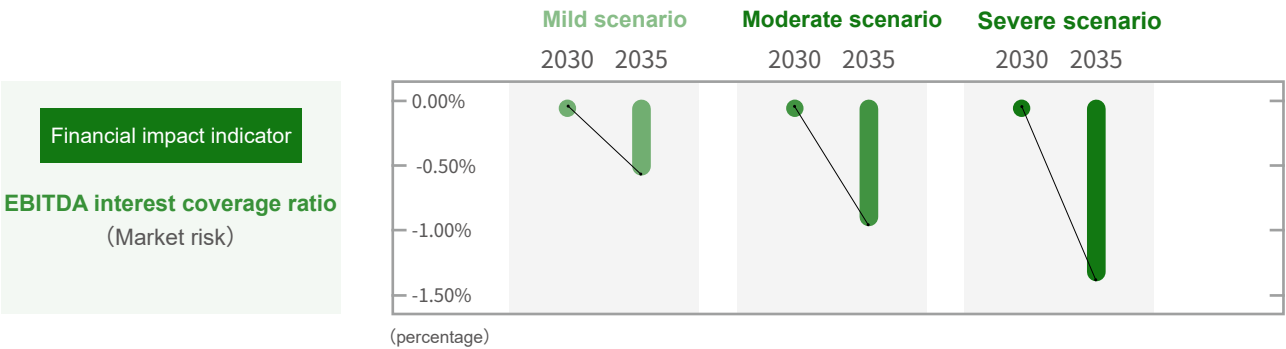
In our quantitative analysis of transition risks, we implemented a robust methodology involving scenario setting, assumptions, and both financial and non-financial forecasting techniques. By integrating the financial statements of parent company and its subsidiaries, we established three greenhouse gas emission scenarios (mild, moderate, and severe) while focusing on carbon emission allowance prices as a critical variable for assessing impacts. Additionally, we drew insights from warming scenarios provided by the People's Bank of China and the Network for Greening the Financial System (NGFS), alongside domestic regulatory adjustments for effective stress testing. Our results indicate that key emission-intensive power plants are likely to encounter operational and financial pressures due to decreasing carbon allowances and escalating carbon prices. However, the gap can be filled through internal transactions among its subsidiaries' power plants, rendering long-term pressure from carbon emission allowance controllable.

For the analysis of physical risks, we utilized the Representative Concentration Pathways (RCPs) established by the Intergovernmental Panel on Climate Change (IPCC), specifically RCP 2.6, RCP 4.5, RCP 6.0, and RCP 8.5. These scenarios facilitated a quantitative assessment of both acute physical risks (typhoons, storms and floods) and chronic physical risks (precipitation and wind velocity changes). The findings indicate that in all scenarios before 2035, the financial implications of acute risks will be relatively stable, and we anticipate a gradual rise in the financial impact of chronic risks. Importantly, the Company has procured comprehensive property insurance to mitigate risks associated with meteorological disasters, ensuring that potential losses from acute physical risks—such as typhoons and floods—are expected to be minimal. Overall, the financial impact of physical risks on the Group is relatively limited and remains manageable.

Forecasts of the ratio of carbon emissions trading prices to free allowances (2023-2035)



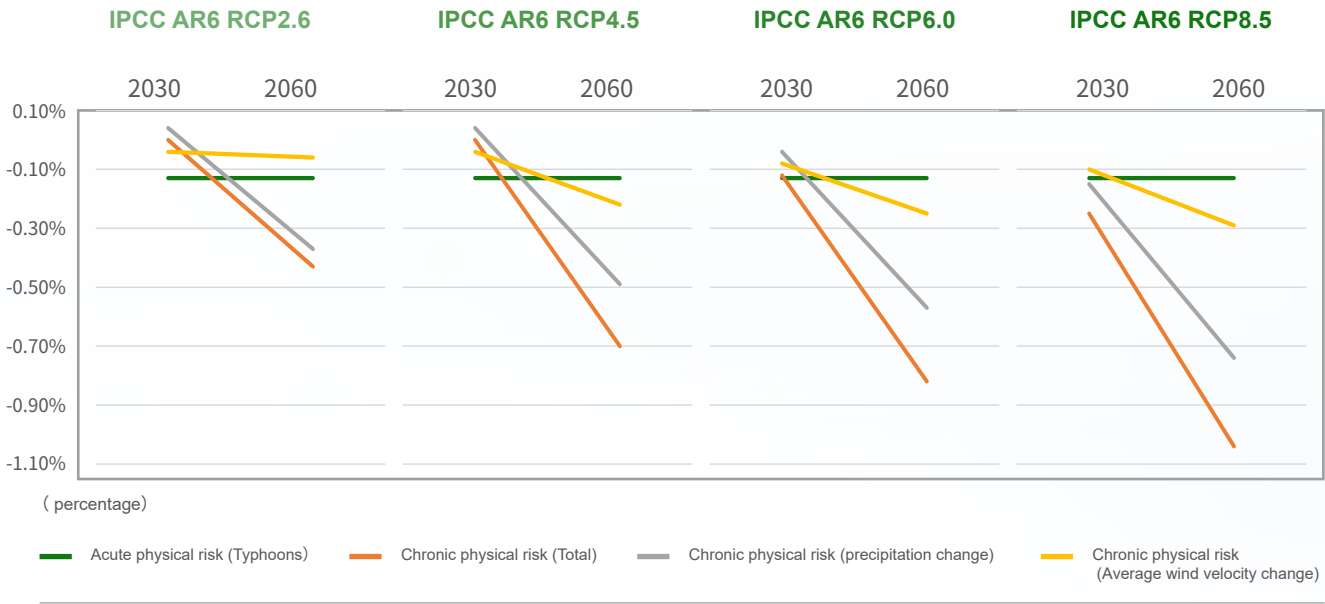
Projected Financial Impact of Transition Risk Scenarios on China Power (2030/2035)



Note:

1. The transition risk analysis is based on a dynamic financial model for forecasting.
2. The baseline scenario assumes that variables such as the price of carbon credits remain as they are until 2035. The mild scenario represents a slow transition for society as a whole (low price of carbon credits), while the severe scenario represents a fast transition (high price of carbon credits).
3. The first table presents the indicator values of the EBITDA interest coverage ratio, reflecting the performance under this scenario and illustrating the extent of deterioration compared to the baseline scenario. The data presented in the second table illustrate the impact of this scenario relative to the baseline scenario as a percentage of net profit. A positive value signifies a benefit, whereas a negative value denotes a loss.
4. Relevant assumptions and explanations: We assume that the analysis and test results from China Power's coal-fired power facilities are representative of the performance of all thermal power assets within the Group. We also assume that the future operating hours and coal consumption per unit of electricity generated for each coal-fired asset will remain consistent. We assume that China Power's future carbon assets and carbon credits (CCER) will remain at their levels recorded at the end of the reporting period, etc.

Projected Financial Impact of Physical Risk Scenarios on China Power (2030/2060)



Note:

- For the physical risk analysis, static financial models are used for forecasting.
- The table provides an analysis of acute physical risks for the years 2030 and 2060, focusing on the impact of meteorological disaster events on fixed assets and construction in progress. The figures presented reflect revenue impacts, where positive values indicate financial benefits and negative values denote losses.
- The analysis of acute physical risks includes an assessment of typhoon disaster losses, which are calculated based on the annual average loss value for an 84-year return period, extending to the year 2100. In parallel, the evaluation of flood disaster losses examines the maximum flood depths anticipated for various assets up to the year 2060. The findings indicate that around 3.3% of power plants are expected to face flood depths exceeding 0.5 meters by 2060, with the majority of them experiencing depths ranging from 0.5 to 1 meter. However, the impact of the loss is minimal and negligible, so it is not reflected in the figure above.
- The table offers a comprehensive analysis of chronic physical risks, focusing on revenue losses attributed to declines in renewable energy generation driven by variations in precipitation and wind velocity projected for the years 2030 and 2060.
- Relevant assumptions and explanations: We assume that the relationship between electricity generated and revenue for various power generation assets of China Power will remain constant in the future. We assume that the performance of the relevant entities will be stable and unchanging within the defined minimum temporal granularity and minimum spatial granularity. The minimum spatial granularity is set at 0.5° (approximately 40-50 kilometers), while for acute physical risks, the minimum temporal granularity is defined as a single event for typhoons and hourly intervals for heavy rain and floods, etc.

Future Responses to Climate Related Risks

- Optimizing the structure of coal-fired power assets**
On the premise of ensuring energy security, we optimize the structure of coal-fired power assets, give priority to retaining highly efficient and clean units, and gradually phase out outdated production capacity.
- Carbon emission trading compliance risk management**
We establish an early warning mechanism for carbon emission trading compliance risks, regularly assess carbon allowance shortfalls, carbon price fluctuations and policy changes, and dynamically adjust compliance strategies.
- Enhancing the development of CCER projects**
We seize the opportunity of the re-launch of the CCER market to actively develop CCER projects and enhance the income from carbon assets.
- Strategical Development of Hydropower Assets**
We concentrate efforts on expanding hydropower projects in regions experiencing notable increases in water resources, particularly in the Northwest China and Southwest China. This strategic focus aims to augment the revenue generated by our hydropower assets.
- Viability of Onshore Wind Power Projects**
We conduct an in-depth sensitivity analysis to evaluate the potential decline in wind resources. This analysis is essential to ensure the economic sustainability and resilience of our onshore wind power initiatives.
- Typhoon Risk Management**
We implement a dynamic risk assessment system that incorporates real-time monitoring and early warning capabilities., enhancing disaster resilience. We focus on improving typhoon resistance standards during the design phase of offshore wind power projects, strengthen technological innovation, and prioritize the research and development of anchoring systems and dynamic submarine cable technologies suitable for marine environments.
- Risk Transfer Mechanism**
To mitigate potential losses, we can insure photovoltaic and wind power projects, explore the viability of catastrophe bonds, and establish a comprehensive risk monitoring system.

Climate Risk Management

China Power strictly adheres to the Implementation Guidance for Climate Disclosures under HKEX ESG reporting framework, building a comprehensive climate risk management system that covers key aspects such as risk identification, assessment, ranking, management, and integration. The Company conducts quantitative scenario analysis and stress testing for climate risk, using a combination of qualitative and quantitative methods to identify physical risks and transition risks. Based on indicators such as likelihood, impact severity, and adaptive capacity, it assesses and prioritizes risks, integrating climate risks into our comprehensive risk management framework. It formulates targeted response strategies and optimizes measures through dynamic monitoring and evaluation, ensuring the deep integration of climate risk management with its business strategy and supporting sustainable development.

Climate Risk Management Process



Metrics and Targets

China Power upholds its responsibility and mission to transform from a traditional power generation enterprise into a green and low-carbon energy provider. In alignment with the Paris Agreement’s goal of limiting global temperature rise to 1.5°C to prevent the most severe impacts of climate change, the Company has set multiple management indicators and targets for addressing climate change. Specifically, the Company has set targets for greenhouse gas emissions, committing to a 20% reduction in total GHG emissions (Scope 1 and Scope 2) by 2025 compared to 2022 level for China Power and its subsidiaries within the scope of its consolidated financial statements. The Sustainability Working Committee will continuously evaluate the effectiveness of carbon emission management) (for details, please refer to *the Carbon Emission Management* under the ESG Issue Management section on the Company’s website). We conduct performance evaluations on the achievement of targets of responsible entities, recognizing and rewarding outstanding performers while holding accountable those who cause significant negative impacts.

We invite regular assurance on our GHG accounting methodology and emissions data. In 2024, we completed carbon accounting for Scope 1 and Scope 2 emissions and are advancing emission reduction efforts based on these results. Additionally, we are actively engaged in the research and practices for Scope 3 carbon accounting. We have thoroughly investigated the business activities within the Group’s value chain, clarified and defined the Scope 3 emission calculation categories closely related to the Group’s business scope, and planned a phased and gradual strategy to collect and account for relevant data.

The scope of greenhouse gas measurement includes China Power and its subsidiaries within the scope of its consolidated financial statements. The statistical methods are with reference to ISO 14064-1:2018 the Greenhouse Gases — Part 1: Specification with Guidance at the Organization Level for Quantification and Reporting of Greenhouse Gas Emissions and Removals and the GHG Protocol Corporate Accounting and Reporting Standard, while adhering to the principles of relevance, completeness, consistency, accuracy, and transparency. The emission factors are primarily sourced from standard documents such as the Guidelines for Greenhouse Gas Emission Accounting and Reporting for Power Generation Facilities, the 2006 IPCC Guidelines for National Greenhouse Gas Inventories (2019 Refinement), the Guidelines for Greenhouse Gas Emission Accounting and Reporting for Other Industrial Sectors (Trial), and the Work Plan on the Management of Power Enterprise GHG Emissions Reporting and Verification in 2023-2025.



China Power's GHG Emission Data

Indicator	Unit	2024	2023	2022 (baseline year)
Greenhouse gas emissions (Scope 1 and Scope 2)	tCO ₂ e	50,302,013	49,103,301	61,899,321
Direct greenhouse gas emissions (Scope 1)	tCO ₂ e	49,876,065	48,805,239	61,730,728
Indirect greenhouse gas emissions (Scope 2)	tCO ₂ e	425,948	298,062	168,593
Scope 3 greenhouse gas emissions (Business travels)	tCO ₂ e	9,887	-	-
Density of greenhouse gas emissions	g/kWh	378.02	456.42	548.06

Calculation method: The greenhouse gas emissions from a specific operational activity = Operational activity data × Emission factor. China Power adopts a location-based approach to disclose its Scope 2 greenhouse gas emissions.

The greenhouse gases calculated by China Power include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulfur hexafluoride (SF₆). In 2024, the Company’s sulfur hexafluoride emission is 752.22 tCO₂e. The specific operational activities generating greenhouse gas emissions are as follows: (1) Emissions from fossil fuel combustion during production processes; (2) Fugitive emissions from the use or leakage of refrigerants, fire extinguishers, sulfur hexafluoride (SF₆) and so on; (3) Industrial process emissions from the use of limestone, urea, etc., for desulfurization and denitrification; (4) Emissions from electricity consumption in office buildings, factories, new energy vehicles, etc.; and (5) Emissions from purchased heat.

In responding to the national Dual Carbon strategy, the Company implements green development concepts, strengthens clean energy deployment and supports the low-carbon transformation of the economy and society by increasing investments in related fields. To support these efforts, the Company has significantly increased its investments in related fields.



In 2024, the Group has made cumulative investments⁷ totaling

39,408,819.3 RMB'000

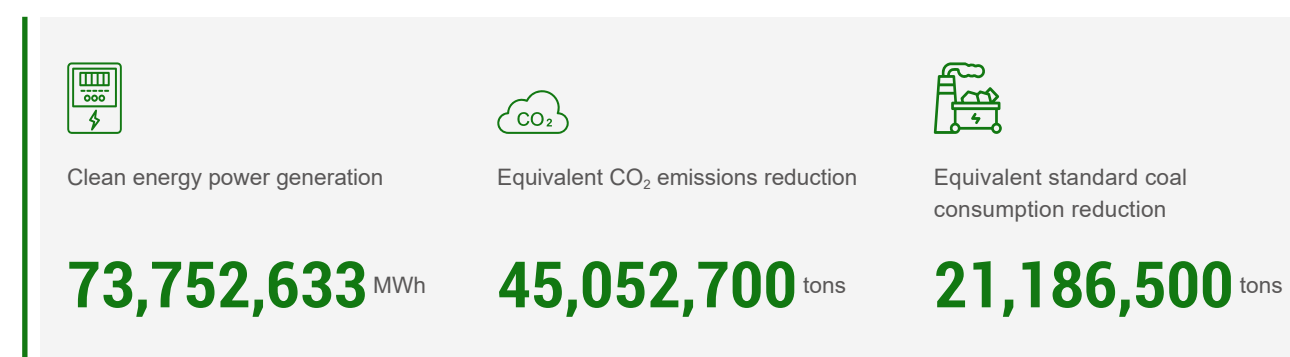
to effectively address climate-related risks and opportunities

⁷ Investments in addressing climate-related risks and opportunities, including direct investment in clean energy projects, relevant R&D investments, etc.

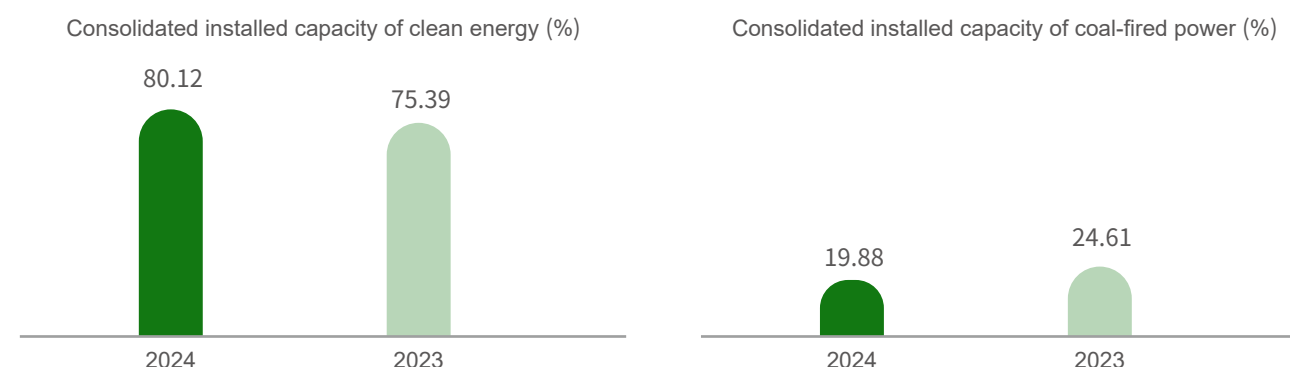
Strategies and Decisions

Clean energy development

We remain committed to the direction of clean energy transition, focusing on wind and photovoltaic energy, continuously optimizing the energy structure, and striving to increase the proportion of clean energy installed capacity. We are making consistent progress on large-scale base projects in key regions and in the development of offshore wind power. We are enhancing investment control and operational management to establish an efficient and streamlined system for our new energy stations. In 2024, the Group's total clean energy consolidated installed capacity reached 39,570.9 MW, accounting for 80.12% of the total consolidated installed capacity.

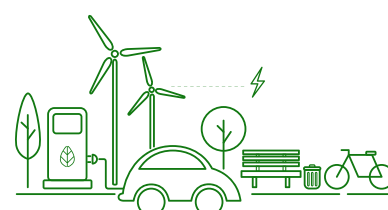


China Power's Clean Energy Installed Capacity



Low-carbon technology development

China Power focuses on the research and development of low-carbon technologies, continuously innovating in the fields of energy storage, transportation electrification, and geothermal energy supply. Through the development of novel energy storage platforms, the Company drives breakthroughs in safe energy storage technologies and large-scale applications, enhancing the efficiency of clean energy utilization. In the transportation sector, the Company accelerates the adoption of green technologies such as battery-swapping heavy-duty trucks and electric construction machinery, optimizes the layout of charging and swapping infrastructure, and supports the green transformation of transportation. Additionally, it expands shallow and medium-depth geothermal energy supply, develops multi-scenario renewable energy systems, and plays a crucial role in achieving near-zero carbon energy use.



Market-based trading

China Power continuously enhances its adaptability to the carbon market and ability to realize the value of clean energy. The Company has developed the China Power Carbon Trading Compliance Work Plan 2024, which includes a scheduling of carbon trading initiatives. This plan guides subsidiaries in engaging in external trading, mitigates market risks, and maximizes allowance carryover. To enhance carbon emission management standards, the Company is organizing specialized training sessions and policy briefings to strengthen capabilities in carbon accounting and verification, carbon trading compliance, and the development of China Certified Emission Reductions (CCER). Furthermore, the Company is advancing the creation of international green certificates and carbon assets. It has successfully completed the registration and trading of green certificates for multiple new energy projects, thereby continuously enhancing the value of clean, green electricity.



In 2024, the Group completed green power transactions of

5,198,404 MWh

traded

13,611,906

green certificates

China Power's Performance on Market-based Trading

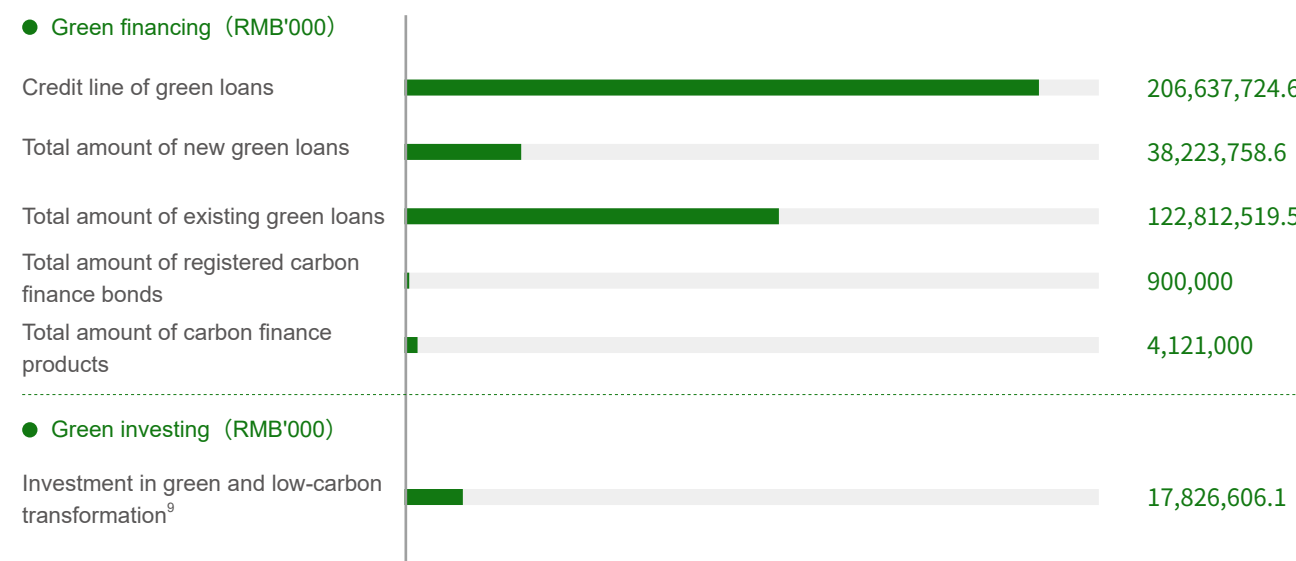


⁸ The statistics represent the green premium income generated from green electricity transactions, which refers to the portion of revenue obtained from selling green electricity that exceeds the conventional electricity price, reflecting the environmental and low-carbon value of green electricity.

Green financing and investing

China Power actively engages in green investment and financing to address climate-related risks and opportunities. Through diverse financing methods such as green loans and carbon bonds, the Company supports the construction of clean energy projects. Additionally, it increases green investment efforts, providing strong support for promoting low-carbon transformation and achieving the Dual Carbon goals.

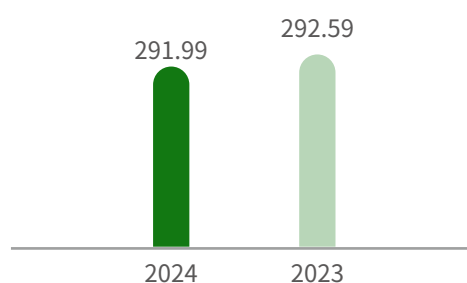
China Power's Performance on Green Investing and Financing 2024



Clean transformation of coal-fired power plants

China Power is making strides in energy-saving and carbon reduction initiatives for its thermal power operations. Through conducting "three transformations" including energy efficiency and carbon reduction transformation, flexibility transformation and heating transformation, the Company is focused on enhancing the clean efficiency and operational performance of its existing thermal power units, optimizing heating capacity, and ensuring the effective operation of key heating projects. Through comprehensive technical upgrades, China Power is improving the cost-efficiency of its units. Additionally, to tackle the technical challenges associated with ultra-low emission upgrades and peak regulation, the Company has implemented measures such as sealing enhancements and catalyst improvements. These initiatives significantly bolster the safety and economic efficiency of its units while promoting the clean and efficient operation of coal-fired power.

China Power's Thermal Power Net Coal Consumption Rate¹⁰ (g/kWh)



Carbon emission management

China Power is actively addressing climate change challenges by comprehensively strengthening carbon emission management. The Company has developed the Carbon Peak Action Plan and the Carbon Emission Management Measures, which provides systematic guidance for achieving Carbon Peak target. By optimizing the ratio of clean energy to thermal power generation, implementing energy-saving and carbon reduction upgrades for thermal power projects, and promoting green operations, the Company continuously reduces carbon emission intensity, drives the energy structure toward a green, low-carbon transformation, and makes active contributions to achieving the national Dual Carbon goals.

⁹ It includes investments in new energy projects construction; investments in technological transformation, unit maintenance, equipment upgrade to reduce energy consumption, carbon emission, pollutant discharges, and enhance resource recycling, etc.

¹⁰ The statistical coverage of this analysis includes the Group's thermal power generation sector, incorporating coal-fired, gas-fired, and environmental power generation. In 2024, we revised the calculation methodology for this metric and applied retrospective adjustments to the 2023 data to ensure consistency.

Environmental Management

China Power integrates ecological and environmental protection into the core framework of its corporate management. The Company continually strengthens the coordinated advancement of environmental management, compliance control, and professional training to comprehensively enhance environmental protection standards and promote the standardization and long-term effectiveness of environmental management. These efforts lay a solid foundation for green, low-carbon development and ecological conservation.



In 2024, the Group invested

RMB **0.594** billion

in ecological and environmental protection

Environmental Management System

China Power continuously improves its environmental management system by formulating and implementing the Environmental Management Policy. The Company establishes the Work Safety and Emergency Management Committee as the central coordinating body and advances the building of the Three Responsibility Systems for environmental management. The Company is committed to building a three-tier environmental management system, strengthening the breakdown of ecological and environmental goals and the implementation of responsibilities. It develops an environmental governance system centered on lifecycle management, clarifying management goals for water resources, waste gases, wastewater, and solid waste, and acquiring ISO 14001 environmental management system certification (for details, please refer to the *China Power International Development Limited Environmental Management Policy* under the ESG Policies section on the Company's website). In 2024, the Company further refined its environmental management system by introducing the Implementation Measures for Ecological and Environmental Protection Rewards and Penalties. This policy clarifies quantitative performance indicators, specifies reward and penalty criteria and incorporates environmental management performance as a key factor in compensation evaluations of the senior management. These efforts are expected to gradually establish a standardized and lasting management mechanism, steadily enhancing environmental management standards.



Environmental Management System

Work Safety and Emergency Management Committee

The committee is chaired by the Chairman of the Board with members comprising senior management and the heads of all departments.

Responsibilities

- Organizing and leading ecological and environmental protection, work safety, and emergency management efforts;
- Implementing national laws, regulations, and management policies, as well as establishing and improving the ecological and environmental protection mechanism system;
- Promoting and improving the Quality, Health, Safety, and Environment (QHSE) management system and ensuring its effective operation;
- Supporting the implementation of the Company's sustainable development requirements, accepting oversight and evaluation from the Sustainability Working Committee on the progress of ESG strategic goals and performance in ecological and environmental protection.

Assurance responsibility system

Specialized departments at the headquarters

Fulfilling primary management duties

- Organize and perform water resource management and energy conservation efforts, including investment in related projects, technology introduction and promotion; Inspect the operational status of energy and water usage facilities and equipment; Monitor the accuracy of energy and water resource consumption data, as well as the implementation of energy-saving and water-saving measures; Promptly identify and document issues and violations.

Supervision responsibility system

Safety, quality, and environmental supervision department at the headquarters

Fulfilling primary supervision duties

- Develop ecological and environmental protection supervision and inspection systems and procedures to ensure all ecological and environmental protection efforts comply with relevant standards and requirements;
- We monitor and regulate the treatment of waste gas, wastewater, and solid waste generated throughout the production process. This ensures that emissions of the wastewater, waste gas, and solid waste are fully compliant with established environmental standards.

Supporting responsibility system

Functional departments at the headquarters

Fulfilling primary supporting duties

- Supporting ecological and environmental management efforts

Primary responsible persons for ecological and environmental protection

Primary leaders of the management teams at each subsidiary

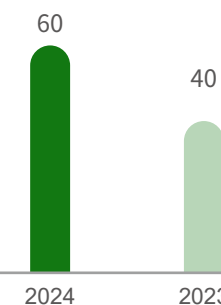
- Sign the Ecological and Environmental Protection Target Agreement which clarifies specific environmental management goals and tasks, such as annual energy-saving targets, total water resource consumption control targets, and compliance rates for waste gas emissions;
- Break environmental management goals and tasks down to relevant departments and positions within the company, clarify their responsibilities and task allocations in environmental management, and ensure accountability is assigned to individuals;
- Regularly organize evaluations and assessments on the completion of environmental management goals and tasks, give rewards and penalties based on evaluation results, motivate departments and employees to participate in environmental management efforts, ensuring the smooth achievement of environmental management goals.

Environmental management policies in China Power

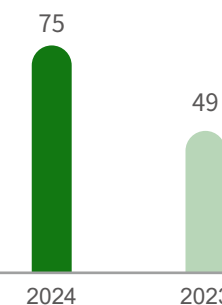
- Environmental and Ecological Protection Management Regulations
- Environmental and Ecological Protection Supervision and Management Regulations
- Carbon Emission Management Measures
- Solid Waste Management Measures
- Air Pollutant Management Measures
- Water Pollution Management Measures
- Implementation Measures for Ecological and Environmental Protection Rewards and Penalties

China Power's Performance on Environment Management

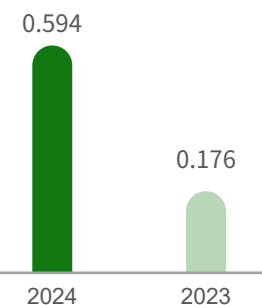
Subsidiaries certified to ISO environment management system



Percentage of subsidiaries certified to ISO environment management system (%)



Investment into ecological and environmental protection (RMB billion)



Environmental Compliance and Risk Control

China Power continuously strengthens ecological and environmental compliance by strictly adhering to the Environmental Protection Law of the People's Republic of China. The Company steadily advances comprehensive ecological and environmental inspections and dynamic control across all industries by issuing the Notice on Further Standardizing Solid Waste Management to clarify refined management requirements for solid waste. Additionally, the Company organizes thematic training to enhance management capabilities. Through "One Project, One List", a dynamic evaluation mechanism, the Company implements risk control throughout the entire project lifecycle.

We have developed the Comprehensive Ecological and Environmental Inspection and Rectification Work Plan for All Industries. Leveraging the internal environmental impact audits annually, the Company covers of all industry types and operating locations, focusing on key areas such as environmental compliance of new energy and thermal power projects and emergency environmental response plan filings. This enables in-depth environmental audits and rectification efforts. During the audit process, communication with the relevant responsible personnel is conducted in accordance with prevailing conditions. Timely adjustments and corrections are made to the associated environmental management measures as necessary. In 2024, a total of 3,495 ecological and environmental issues were identified, with 3,300 rectified.



We integrate environmental compliance management and control into the whole process of project development, construction, and operation, and continuously strengthen the environmental management throughout the entire life cycle of projects, so as to safeguard environmentally sustainable development.

Environmental Compliance Management of China Power



China Power's Performance on Environment Impact Audits

Indicator	Unit	2024	2023
Three-year coverage of environmental impact audits	%	100	100
Risk points identified during environmental impact audits (environmental hazards identified)	/	3,495	610
Corrected risk points (eliminated environmental hazards)	/	3,300	473
On-time correction rate	%	94.42	77.54

Environmental Protection Training

We focus on the cultivation of ecological and environmental protection awareness and the improvement of professional skills, and systematically carry out environmental protection training at multiple levels and in multiple fields. Centering on topics such as safety and environmental protection of new energy projects and solid waste management, we organize special training sessions which introduce in detail the specific roles of common energy types such as electricity, natural gas, and water in the production and office processes, and deeply explain the impact of energy consumption on the environment. This helps employees have a deep understanding of environmental protection policies and regulations, master the skills of identifying and preventing environmental risks, deepen their understanding of the importance of environmental protection, and ensure that the Company's operations are highly consistent with environmental protection requirements.



Shanxi Company Conducts Environmental Protection Training

China Power's Environmental Protection Training Performance





CP Huayuan organized a special competition on environment day

In 2024, CP Huayuan organized a special competition on Environment Day. Through forms such as playing typical ecological and environmental protection cases on a large screen and answering ecological and environmental protection test questions in the Diantouyi app, it guided employees to actively learn environmental protection knowledge and participate in the competition, strengthened their ecological and environmental protection awareness, and created a good atmosphere.



Special Competition on Environment Day



Offshore Wind Power Company organized training on environmental protection laws, regulations, policies and standards

In April 2024, the Offshore Wind Power Company organized training on environmental protection laws, regulations, policies and standards, covering different departments and positions. It deeply explained the latest compliance requirements through case analysis, effectively improving employees' environmental protection awareness and skills, enhancing their understanding of the importance of environmental protection, and ensuring that the company's operations meet the increasingly strict environmental protection requirements.



Offshore Wind Power Company Organizes Training on Environmental Protection Laws, Regulations, Policies and Standards

Resource Management

China Power has consistently viewed resource management as a crucial strategy for advancing sustainable development. The organization is dedicated to promoting a systematic and scientific approach to managing energy, water resources, and material utilization. We implement our Energy Conservation Management Measures by establishing a structured framework of accountability, coupled with regular analysis and reporting. Our strategy includes the development of medium and long-term rolling plans focused on energy conservation and consumption reduction, with clearly defined and quantifiable targets at all levels. We enhance energy conservation diagnostics and self-assessments, while continually refining our long-term mechanisms for effective energy conservation management. By driving technical innovations in energy conservation and defect management, optimizing water resource utilization, and improving the comprehensive utilization of power generation by-products, we cultivate a synergistic relationship between resource recycling and efficiency enhancement.

Energy Management

China Power prioritizes energy conservation, consumption reduction, and enhancing energy efficiency. The Company consistently optimizes its energy management through technological advancements and refined management practices. By focusing on the energy conservation transformation of key units, it has successfully completed technical upgrades, including flue gas heat exchanger, acoustic soot blowers and high and low bypass valves. These efforts have addressed critical energy consumption issues and significantly boosted equipment operation efficiency. To effectively manage energy use, improve efficiency and reduce energy consumption in the future. The Company has established an energy efficiency improvement target, committing to reduce thermal power net coal consumption rate¹¹ to 292 g/kWh by 2025. In 2024, we have surpassed this target, successfully decreasing the coal consumption rate to 291.99 g/kWh. Furthermore, we have invested RMB 27,456,000 in research and development initiatives focused on further minimizing energy consumption.

This year, it intensified efforts in energy conservation-oriented technical transformation and defect control, trialing desulfurization efficiency enhancers and optimizing the desulfurization system's operation. These initiatives have led to a further reduction in coal and equipment energy consumption, significantly enhancing operational benefits and laying a strong foundation for sustainable development. The Company regularly monitors the energy utilization of each subsidiary. During audits, it evaluates and analyzes the construction of the energy management system, the energy consumption levels of production projects, and the benefits derived from energy conservation-oriented technical transformation projects. By identifying issues and promoting rectification, the Company ensures ongoing improvements in energy utilization efficiency through technical measures such as energy conservation, heat supply, and flexibility transformation. It continues to optimize production indicators, achieve energy conservation and consumption reduction goals for 2024, and realize substantial economic and environmental benefits. In 2024, the Group's comprehensive energy consumption was 20.67 million tons of standard coal.



¹¹ The statistical coverage of this analysis includes the Group's thermal power generation sector, incorporating coal-fired, natural gas, and environmental power generation.

Energy Consumption Performance of China Power

Indicator	Unit	2024	2023
Total comprehensive energy consumption	10,000 tons of standard coal	2,067	2,109
Comprehensive energy consumption intensity	gram of standard coal/kWh	155	196
Direct energy consumption	10,000 tons of standard coal	2,061	2,107
Natural gas	m ³	597,685,522	205,961,462
Coal consumption	Ton	27,829,064	27,054,163
Gasoline consumption	Ton	226	311
Diesel oil consumption	Ton	5,431	1,022,588
Direct energy consumption intensity	gram of standard coal/kWh	154.89	195.85
Indirect energy consumption	10,000 tons of standard coal	6	2
Electricity purchased externally	MWh	458,964	189,040
Heat purchased externally	GJ	0	0
Steam purchased externally	m ³	1,137	0
Indirect energy consumption intensity	gram of standard coal/kWh	0.43	0.22
Non-fossil energy use types	/	Solar energy, wind power, and hydropower	Solar energy, wind power and hydropower
Non-fossil energy consumption	MWh	189,936	15,060
Proportion of non-fossil energy consumption for power generation	%	29.27	7.38

Water Resource Management

Guided by the principles of scientific and refined management, China Power is committed to comprehensively enhancing its water resources management. The Company conducts thorough inventories and risk assessments of water resources, utilizing the water risk map provided by the World Resources Institute (WRI). This approach enables the identification of water resource risk levels in each operational area based on annual assessment results, and management measures such as water resource impact assessment, water conservation and efficient utilization are adopted, ensuring effective management of water-related risks. Currently, there is no stress in water withdrawal and consumption in the Group's operational sites.

The Strategic and Sustainable Development Committee under the Board is tasked with the oversight of sustainability-related matters, encompassing critical areas such as water resource management and water risk mitigation. The Chief Executive Officer (CEO) is directly responsible for coordinating water resources management, setting clear objectives and action plans. Through initiatives such as water-saving technical transformations, wastewater recycling, and water balance testing, the Company consistently enhances water use efficiency and develops a comprehensive water resources management system that integrates recycling with refined management practices. For more information, please refer to the *Water Resource Management* under the ESG Issue Management section on the Company's official website.

Before commencing operations, we engage third-party experts to conduct comprehensive water impact assessments. If we anticipate substituting water resources, we carry out water quality sampling and chemical analysis of alternative sources to ensure that the treated water complies with work safety standards. Furthermore, we also conduct thorough technical and economic feasibility evaluations. We encourage all business units to enhance the efficient recycling of water and increase the use of urban reclaimed water. Through methods such as chemical precipitation flocculation, pH regulation, and chemical water treatment, we achieve tiered usage and recycling of different water sources. This effectively controls the cycle multiple of water extraction, reducing reliance on freshwater resources. We continue to focus on water-saving management within the plant, optimizing water resource utilization processes from the source. We aim to implement water-saving measures across all operational sites and gradually improve water-saving production processes in all business scenarios. In 2024, the Group totally consumed 65.8539 million tons of water, a decrease of 11.95% compared to 2023. A total of 12.3053 million tons of alternative water sources were used, accounting for 18.69% of total water consumption.

The Company also conducts water conservation awareness and education campaigns, covering the importance of water resources, the potential impacts of water scarcity on the environment and society, as well as water-saving methods and measures. This initiative targets all production and administrative staff, encouraging them to actively implement water-saving protocols and promote the continuous increase in water recycling in production.

China Power's Water Resource Management Performance

Indicator	Unit	2024	2023
Total water withdrawal (fresh water)	10,000 tons	109,831.92	118,986.41
Total water consumption (fresh water) ¹²	10,000 tons	6,585.39	7,478.87
Water consumption intensity	g/kWh	494.90	766.79
Alternative water consumption	10,000 tons	1,230.53	913.16
Recycled water consumption ¹³	10,000 tons	7,896.10	942.64
Water recycling rate ¹⁴	%	94.00	93.14
Number of incidents violating water usage/quality permits, standards, and regulations.	case	0	0

¹² Total water consumption (fresh water) refers to the net amount of fresh water consumed during water usage that cannot be recycled or reused.

¹³ Recycled water refers to the water resources that can be reused after proper treatment.

¹⁴ Recycling rate of water resources = (total water withdrawal - water resources consumption) / total water withdrawal.



In 2024, the Group totally consumed

65.8539 million
tons of water

a decrease of

11.95% compared to 2023



2024 Highlights

Water-saving technological upgrades and zero wastewater discharge management

- By the end of 2024, Shentou Power Plant II has significantly enhanced its water resource efficiency through comprehensive technological upgrades and zero wastewater discharge management across its plant. The adoption of indirect air cooling technology, closed-loop cooling water systems, and a full-membrane boiler feedwater system has enabled the organization to achieve full-process wastewater recycling. Additionally, the installation of rainwater drainage reuse systems and reverse osmosis concentrate retreatment equipment allows for the reuse of wastewater in various applications, such as desulfurization, cooling of ash and slag, and landscaping. This integrated approach achieves multi-purpose water use, recycling, and zero wastewater discharge, setting a practical example for the development of water-efficient power plants.

Plant-wide water balance test

- In 2024, Changshu Thermal Power completed its first plant-wide water balance test, providing a comprehensive evaluation of the power plant's water intake, usage, and consumption. The company received the formal Plant-Wide Water Balance Test and Water System Diagnostic Report, which assessed the water usage levels following water-saving upgrades, identified current water usage conditions, and highlighted further opportunities for optimization and water-saving potential. This report offers a sound basis for the power plant to develop water intake and discharge optimization plans and implement effective water-saving measures.

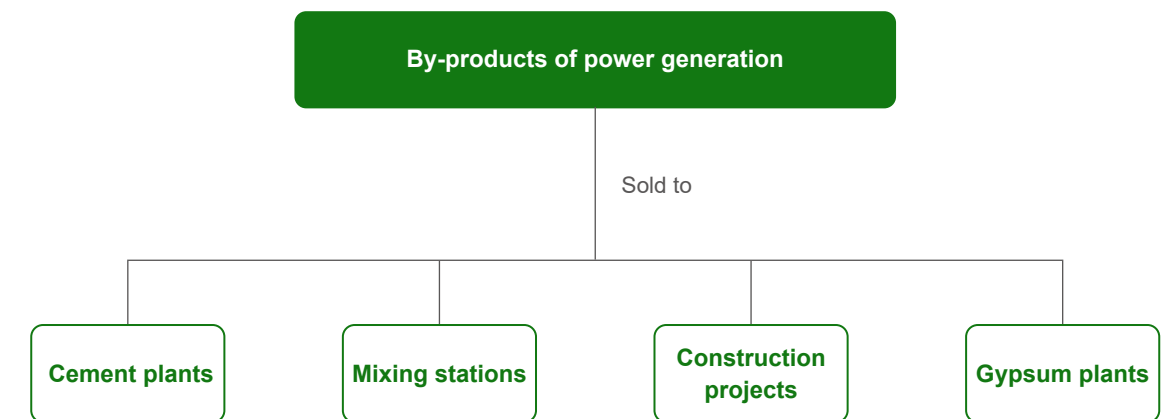
Comprehensive daily water-saving management measures

- By the end of 2024, Wuhu Power had implemented comprehensive daily water-saving management measures. Through regular inspections of wastewater treatment facilities, addressing equipment defects, and preventing leaks and spills, the company ensures efficient water use. It also regularly engages third-party organizations to conduct water balance tests and proposes optimization plans. Additionally, the company has advanced initiatives such as rainwater collection, concentrate water recovery, and the construction of a water equipment maintenance information system, achieving refined water management and maximizing its water-saving potential.

Resources Utilization

China Power has strengthened the integrated management of materials and power generation by-products, promoting the efficient recycling of resources. Through initiatives such as emergency spare parts co-storage, supplier-managed storage, and statistical analysis of idle inventory, the Company has laid the groundwork for optimized inventory management. It collaborates with relevant departments to conduct special inspections and on-site research on the comprehensive utilization of power generation by-products, clarifying utilization directions and identifying improvement potential. For by-products like coal ash, slag, and gypsum, the Company focuses on advancing multi-scenario applications both regionally and beyond. It is gradually building a full-chain utilization system for power generation by-products and working towards creating a resource-efficient enterprise.

Comprehensive Utilization of Power Generation By-products



China Power's Performance on Power Generation By-product Management

Indicator	Unit	2024	2023
Comprehensive utilization rate of power generation by-products	%	82.6	86.9

Pollutant Management

China Power has strengthened pollutant management across all operational locations, focusing on the treatment of waste gas, wastewater, and solid waste. The Company optimizes both technical methods and management measures to continuously enhance environmental protection standards. Through source reduction and facility upgrades, the Company effectively reduces air pollutant emissions. By implementing wastewater treatment and recycling, it significantly improves water utilization efficiency. Additionally, through standardized waste management and resource utilization, the Company minimizes its environmental impact. (For more details, please refer to the *Management of Pollutant Emission and Waste Discharge* under the ESG Issue Management section on the Company’s website).

Waste Gas Management

China Power places significant emphasis on waste gas management, effectively reducing air pollutant emissions through source control and technological upgrades. The Company has set pollutant reduction targets, committing to a 15% reduction in air pollutant (including sulfur dioxide, nitrogen oxides, flue gas and dust) emission intensity (calculated as air pollutant emissions divided by operating profit) by 2025 compared to 2022 levels. In 2024, the Company’s emission intensity was 1.264 kg per RMB’000, representing an 34.98% decrease compared to 2022 (1.944 kg per RMB’000). For thermal power generation, which produces substantial greenhouse gases and pollutants, the Company has developed special emission reduction plans. It optimizes fuel procurement by prioritizing the use of coal with low sulfur, low ash, and low nitrogen content, which helps reduce the generation of sulfur dioxide, nitrogen oxides, flue gas and dust at the source. The Company also selects air pollution control technologies based on local conditions and continuously upgrades its waste gas treatment facilities, achieving ultra-low emissions for all thermal power units (including coal-fired, natural gas, and environmental power generation). In 2024, the Company continued to advance technology improvements for waste gas treatment across all operational locations, completing multiple upgrade projects, such as the Bazhou Environmental Power flue gas purification upgrade. These efforts have comprehensively enhanced flue gas purification capabilities, actively contributing to ecological environment management and improving air quality and green development.



Bazhou Environmental Power Flue Gas Purification Upgrade Project

China Power’s Waste Gas Management Performance¹⁵

Indicator	Unit	2024	2023
Total waste gas emission	Ton	15,378.62	14,785.22
Flue gas and dust emissions	Ton	528.24	534.48
Density of flue gas and dust emissions	g/kWh	0.004	0.005
SO ₂ emissions	Ton	4,436.38	4,215.36
Density of SO ₂ emissions	g/kWh	0.03	0.04
NO _x emissions	Ton	10,414.00	10,035.38
Density of NO _x emissions	g/kWh	0.08	0.09

Wastewater Management

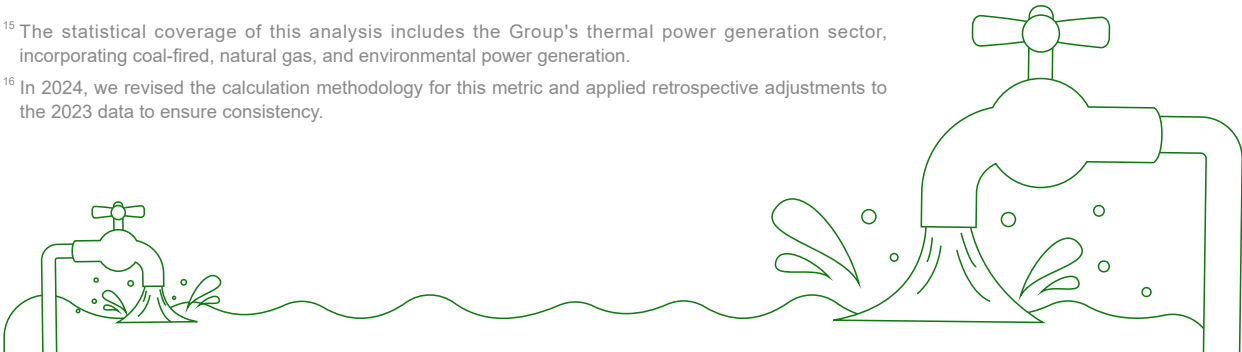
China Power has comprehensively advanced its wastewater management efforts, continuously optimizing wastewater treatment technologies and building an efficient, eco-friendly wastewater recycling system. The Company employs various advanced processes, including low-temperature flash evaporation and concentration, high-temperature bypass drying, domestic sewage treatment and reuse, and multi-stage industrial wastewater treatment. These technologies address multiple categories, such as desulfurization wastewater, domestic sewage, industrial wastewater, and coal-containing wastewater, significantly enhancing water resource utilization efficiency and reducing environmental pollution. As of the end of 2024, all thermal power plants under the Group have fully achieved zero direct wastewater discharge.

China Power’s Waste Water Management Performance¹⁶

Indicator	Unit	2024	2023
Total wastewater discharge	Ton	8,073,340	10,859,892
COD emissions	Ton	178.60	243.57
Density of COD emissions	g/kWh	0.00134	0.00226
Ammonia nitrogen emissions	Ton	5.34	21.84
Density of ammonia nitrogen emissions	g/kWh	0.00004	0.00020

¹⁵ The statistical coverage of this analysis includes the Group’s thermal power generation sector, incorporating coal-fired, natural gas, and environmental power generation.

¹⁶ In 2024, we revised the calculation methodology for this metric and applied retrospective adjustments to the 2023 data to ensure consistency.



Solid Waste Management

China Power continuously strengthens waste management by comprehensively standardizing the collection, storage, and disposal of hazardous waste and general industrial solid waste. The Company has issued the Notice on Further Standardizing Solid Waste Management, urged subsidiaries to release relevant policies such as the Hazardous Waste Management Policy and the Solid Waste and Other Pollutant Management Measures based on their operational needs, ensuring compliance and standardization in waste management.

All subsidiaries under the Group strictly implement waste classification and collection, standardized storage, and compliant disposal. By optimizing operational management to reduce waste generation and promoting resource utilization and landfill reclamation measures, the Company comprehensively enhances waste management standards. In 2024, the Group has zero environmental penalty incident caused by illegal discharge of solid waste.

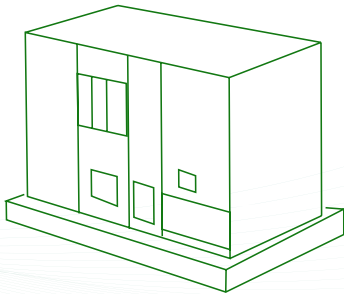
Disposal measures

General waste

- The coal ash, slag, and desulfurization gypsum generated by power plants are comprehensively utilized after being sold and processed. Slag that cannot be transported in the short term is stored in compliant ash storage sites at each power generation unit, awaiting appropriate utilization once sales markets are developed. These materials are generally used in cement, urban construction, refractory bricks, and other applications.
- The Company maintains statistical records to monthly track indicators such as the comprehensive utilization volume and utilization rate of coal ash, slag, and desulfurization gypsum.
- Non-recyclable general industrial waste and construction waste are promptly removed and subject to treatment for harmless recycling in accordance with local government regulations.
- Domestic garbage is entrusted to qualified disposal entities for standardized treatment.

Hazardous waste

- The Company complies with the Law of the People’s Republic of China on the Prevention and Control of Environmental Pollution by Solid Wastes and the National Catalogue of Hazardous Wastes.
- It conducts comprehensive supervision and inspection of the entire process from generation, collection, storage, flow, transportation, and disposal of hazardous waste.
- The Company strictly implements the hazardous waste transfer manifest system, entrusting the proper disposal of waste lubricants and other hazardous waste to licensed third-party professional agencies.
- Fly ash undergoes chelation stabilization and, after passing inspection, is transported to landfills for safe disposal or co-processing in cement kilns.



China Power’s Performance on Solid Waste Management

Indicator	Unit	2024	2023
Comprehensive generation of non-hazardous waste	Ton	12,875,733.82	13,201,638.91
Intensity of comprehensive non-hazardous waste generation	g/kWh	96.76	122.71
Recycled non-hazardous waste ¹⁷	Ton	10,649,340.92	-
Hazardous wastes generated	Ton	128,031.63	134,138.10
Hazardous waste intensity	g/kWh	0.96	1.25
Treatment and disposal of hazardous wastes ¹⁸	Ton	127,683.63	124,894.47
Investment in hazardous waste disposal	RMB'000	47,455.8	-

¹⁷ The Company monitors and records the treatment methods for all non-hazardous waste. Non-recycled non-hazardous waste is either stored in compliant conditions or undergoes harmless and compliant disposal. None of the waste is treated through direct incineration, direct landfilling, or any other methods that could adversely impact the environment.

¹⁸ The Company monitors and records the treatment methods for all hazardous waste. Hazardous waste that has not yet been treated or disposed of is stored in compliant conditions, awaiting treatment and disposal. None of the waste is treated through direct incineration, direct landfilling, or any other methods that could adversely impact the environment.

Green Actions

China Power firmly fulfills its green mission by coordinating and advancing green operations, ecological protection, and environment-oriented public welfare efforts. The Company continuously enhances its comprehensive governance capabilities in the green and low-carbon sector. Focusing on resource conservation and environmental protection, we strengthen the implementation of all-staff responsibilities and optimize management mechanisms. This drives effective results in green office practices and ecological restoration. By improving the ecological and environmental management system, the Company explores new paths for biodiversity protection and industrial development, building a virtuous cycle of ecological and economic coordinated development. Additionally, the Company increases efforts in environment-focused public welfare, actively promotes green concepts, fosters social consensus, and contributes to achieving sustainable development and building a beautiful China.

Green Operations

China Power places a strong emphasis on green and low-carbon principles as the foundation of its development strategy. It comprehensively promotes resource conservation and environmental protection, having issued Proposal on Practicing Frugality in Office Operations and the Work Plan for Further Practicing Frugality and Maintaining a Tight Budget, and conducted education campaign to encourage all employees to strengthen their awareness of energy conservation and eliminate extravagance and waste. It urges all subsidiaries to implement appropriate cost-saving measures, actively purchases green certificates, and achieves 100% green power coverage for office buildings. In 2024, the Group's total office electricity consumption (entirely from clean energy) was 21,238.63 MWh, representing a 12.71% decrease compared to 2023.

Green Operation Initiatives

Reducing water consumption

Encourage employees to cultivate water-saving habits, promptly turn off faucets, and immediately address any dripping or leaking water to prevent prolonged water flow. Additionally, replace water fixtures with water-efficient alternatives.



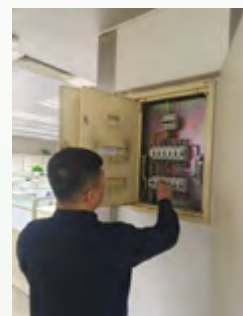
Water Saving Reminders

Reducing electricity consumption

In well-lit conditions, avoid turning on the lighting and promptly turn off unused electrical appliances to reduce standby time. Set air conditioning temperatures appropriately and assign personnel to conduct regular inspections and report on electricity usage.

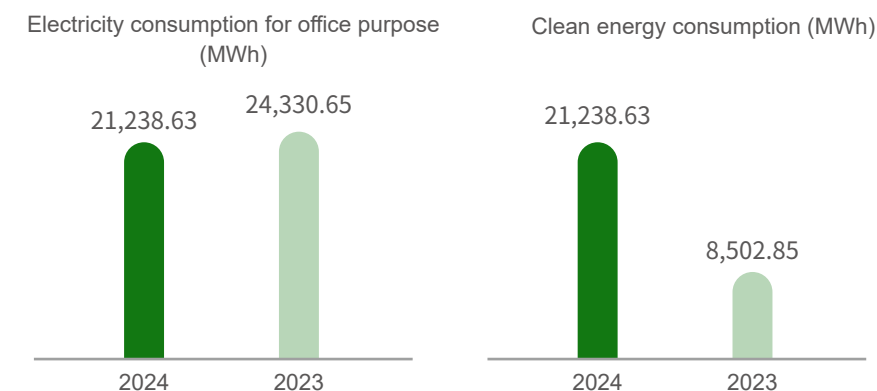


Reminders for Saving Electricity



Routine Inspections by Property Maintenance Staff

China Power's Power Consumption for Office Operations



Clean energy consumption as a percentage of electricity consumption for office purpose

100%

Reducing the use of office consumables

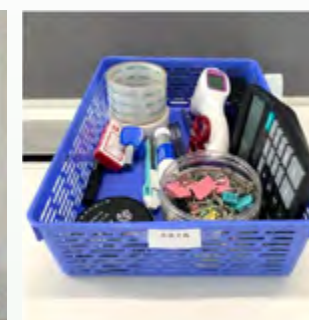
The Company continues to implement the Paperless Office Management Measures, promoting paperless office operations while ensuring confidentiality and security.

When printing is necessary, double-sided printing and proper formatting are used to reduce paper waste. Additionally, the Company strengthens paper recycling and reuse to reduce new paper consumption.

The Company promotes shared office supplies to avoid duplicate purchases and further improve resource utilization efficiency.



Reminders for Saving Paper



Shared Stationery

Meal management

Encourage taking appropriate portions of food and packing leftovers, fostering a sense of conservation that values pride in clean plates and shame in waste.



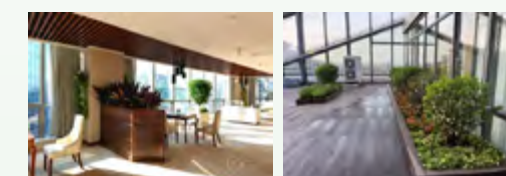
Promoting Food Conservation

Low-carbon travels

The Fuxi Power Plant has introduced a commuter bus service and encourages all employees to prioritize this mode of transportation. This initiative promotes a low-carbon and environmentally friendly approach to commuting.

Plants in offices

Take proactive greening initiatives within the office space by selecting a diverse range of plant species. Conduct regular inspections and maintenance to foster a healthy, aesthetically pleasing, and comfortable environment for employees.



Arrangement of Rented Green Plants



Shandong Energy explored green power trading to help clients with green operations

By the end of 2024, Shandong Energy had fully utilized its own stations and the resources of new energy stations operated by peer companies in Shandong, cumulatively achieving a green power transaction volume of 83,530 MWh. This resulted in an environmental premium of approximately RMB 1,500,000, helping the Bank of China Shandong Branch achieve 100% green electricity consumption for its building. Additionally, the company assisted Dajin Heavy Industry, a new energy equipment supplier, in achieving 100% green electricity consumption for its export production line, meeting international green supply chain requirements.



Shandong Energy organized a green certificate subscription campaign

On 15 August 2024, Shandong Energy initiated a themed campaign that encouraged employees to actively acquire green certificates from the company's Kangzhuang Nengde and Houzhen Guotou photovoltaic power stations. A total of 243 green certificates were sold, representing 243 MWh of clean electricity. This campaign significantly enhanced the promotion of green consumption principles and low-carbon living.

Ecological Protection

China Power actively responds to the national call for the construction of an ecological civilization by thoroughly optimizing its ecological and environmental management system, with the Board acting as the ultimate decision-making authority. The Company further promotes the implementation of responsibilities and the enhancement of mechanisms, using Implementation Measures for Ecological and Environmental Protection Rewards and Penalties as an opportunity to strengthen the effective execution of the all-staff responsibility system and continuously improve ecological and environmental management standards. Following the "avoid-minimize-restore-offset" mitigation approach, the Company standardizes ecological protection and restoration efforts throughout the project lifecycle. It deeply explores the synergistic development path between biodiversity conservation and project operations, illustrating the profound significance of the collaborative development of ecological environments and industries.

Building on management measures such as the Ecological and Environmental Protection Supervision and Management Regulations and the Ecological and Environmental Protection Regulations, the Company establishes a location-specific biodiversity risk assessment procedure that meticulously identifies, analyzes, and evaluates the potential impacts of operational activities on biodiversity for each project, providing a foundation for risk management strategies and ensuring compliance with regulatory policies to promote sustainable development. This procedure covers all business-related regions and relevant biodiversity elements. The Company has formed an assessment team to collect internal and external data, identifying risks from three aspects: business activities, environmental impacts, and laws, regulations, and policies. The team then analyzes these risks based on likelihood and impact severity, creates a risk matrix, categorizes risks, and produces corresponding response strategies for different risk levels. Additionally, the Company has established a monitoring mechanism to update risk assessments as needed based on changes in indicators and updates to laws and regulations, adjusting risk management strategies and measures accordingly.

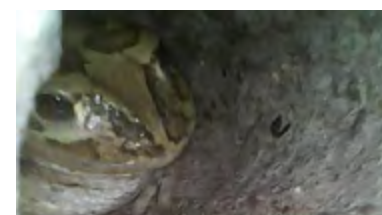


Chile S.A. (an entrusted asset under China Power) - 14 Years of Dedicated Research to Protect the Environment and Biodiversity Wins the 2024 (7th) Outstanding Case Award for Chinese Enterprises' International Image Building



Zuma Energia organized a special activity for protecting burrowing frogs

In 2024, Zuma Energia (an entrusted company of China Power), initiated a special program aimed at protecting burrowing frogs at the Potrero Photovoltaic Plant. Through extensive monitoring and research across five breeding sites in partnership with professional biologists, and by optimizing environmental factors such as humidity and temperature, the population of the endangered burrowing frogs surged by 50% over two years. Simultaneously, the company fostered environmental protection education within the community and local schools, raising awareness about burrowing frog conservation. This initiative not only enhanced residents' environmental consciousness but also minimized human interference with the frogs' habitats, exemplifying a successful model of harmonious coexistence between species protection and photovoltaic energy production.

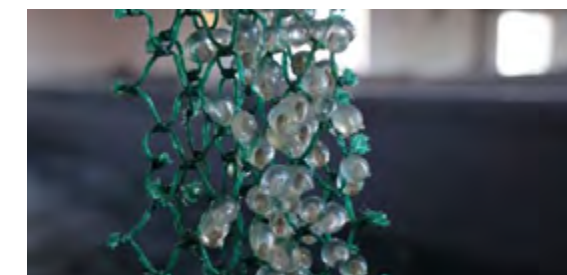


Special Activity for the Protection of Burrowing Frogs



"Replenishment and Release" for preserving and protecting the ecological balance

In 2024, the first phase of the 450MW project at Site U of the Shandong Peninsula South Offshore Wind Power Base, managed by Shandong Energy, implemented an ecological protection and restoration plan for the utilized marine area. This included activities such as replenishment and release (of marine creatures), shoreline restoration, and coastal wetland rehabilitation. A total of 917,300 fertilized eggs of Sepia esculenta and 364,000 Nibea albiflora were released as part of the stock enhancement efforts, with ecological compensation amounting to RMB 12,714,600. These initiatives significantly contributed to the restoration and balance of the marine ecosystem.



Replenishment and Release



Wu Ling Power continues to carry out river channel dredging

In 2024, the Lingjintan Power Plant of Wu Ling Power undertook river channel dredging efforts, successfully disposing of approximately 3,000 cubic meters of river debris throughout the year. This initiative effectively mitigated the risk of upstream waste harming the ecological integrity of the downstream basin, improved water quality, and preserved biological habitats. Additionally, it played a crucial role in safeguarding the migration area of the Chinese merganser, bolstered the development of ecological civilization in the region, and contributed to the protection of the Yuanjiang River Basin's ecological environment.



Chinese Merganser



Measures for protecting biodiversity in the floating photovoltaic project in Sarawak, Malaysia

In 2024, the Floating Photovoltaic Project in Sarawak, Malaysia (an entrusted company of China Power) implemented various biodiversity protection measures. The project site was carefully chosen following an environmental impact assessment, to avoid areas with significant ecological functions. Adequate spacing between the photovoltaic arrays was maintained to minimize shading on aquatic plants, allowing them to photosynthesize effectively. The project also strategically arranged its components based on water flow conditions and optimized water channels to protect the habitats of aquatic organisms. Additionally, low-reflection materials were utilized to mitigate light pollution affecting water birds, thereby preserving their habitats and flight paths. Throughout the construction and operational phases, measures were taken to ensure stable water quality, preventing any potential water pollution.



The Floating Photovoltaic Project in Sarawak, Malaysia

Environmental Protection for the Public Interest

China Power is committed to environmental protection through various public welfare activities. The Company actively promotes environmental awareness among employees and the broader community, advocating for green and low-carbon practices to contribute to the vision of a beautiful China.



China Power organized and participates in a series of beach cleaning initiatives

In 2024, China Power organized and participated in a series of beach cleaning initiatives, showcasing its dedication to safeguarding the coastal environment and fulfilling its responsibility to the community.

In January 2024

the Company led a public welfare event focused on cleaning Shek O Beach in Hong Kong.



Cleaning Shek O Beach, Hong Kong

In June 2024

In June 2024, China Power took part in a public welfare initiative to clean the Golden Beach in Hongkong.



Cleaning the Golden Beach



Fuxi Power Plant held the "Clean Thermal Power, Build a Green Home", an enterprise Open Day

In December 2024, Fuxi Power Plant organized an open day event themed "Clean Thermal Power, Build a Green Home". The event welcomed over 20 teachers and students from Yuejiang Middle School in Gaoxian County. Through an engaging format that combined viewing captivating promotional videos on environmental protection with an immersive on-site experience, the power plant showcased its commitment to environmental stewardship and innovative practices. This initiative aimed to instill the principles of low-carbon environmental protection in the younger generation.



The Enterprise Open Day Activity

03

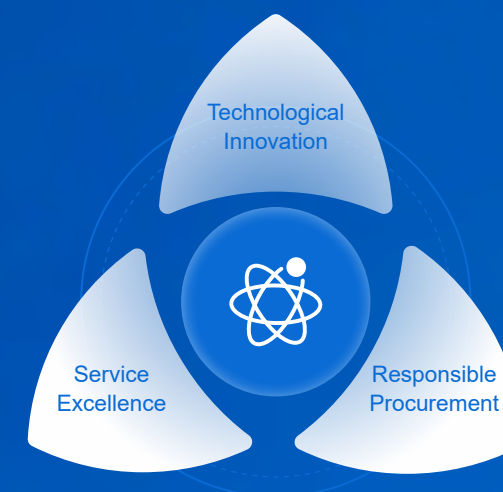
Shared Value Creation

Service Commitment and Pursuit

China Power is dedicated to collaborating with diverse partners to explore innovative paths for value co-creation. By enhancing cooperation, sharing resources, and fostering collaborative innovation, the Company consistently elevates the quality and efficiency of its power engineering and product services. This approach not only builds a sustainable supply chain system but also drives significant momentum for the Company's high-quality development.

Indicator	Unit	2024	2023
R&D expenses	RMB'000	352,424	306,351
Number of R&D personnel	person	917	733
Number of technological innovation platforms awarded during the year	platform	8	8
Total number of authorized patents by the end of the year	patent	1,370	1,083
Number of honorary awards for technological innovation	award	39	23
Investment into supporting industry associations	RMB'000	550	-
Number of subsidiaries certified to ISO 9001 quality management system	subsidiary	22	-
Customer satisfaction rate	%	100	100
Number of suppliers selected based on environmental and social criteria	supplier	75.43	75.07

Responding to the Sustainable Development Goals (SDGs) of the United Nations



Technological Innovation

China Power embraces its mission to meet the responsibilities of our era, with technological innovation as the cornerstone of its corporate growth. The Company consistently seeks out new technologies and models within the energy sector, drawing on its extensive expertise in clean energy and emerging technologies to spearhead transformative innovations that propel the industry forward. Committed to collaboration with global partners, China Power strives to collectively advance toward a zero-carbon future and craft a new chapter in energy technology innovation.

Innovation Framework

China Power prioritizes scientific development as its core principle. Guided by the 14th Five-Year Plan for Scientific and Technological Innovation in the Energy Sector, it rigorously enforces management protocols, including the Regulations on Scientific and Technological Management, along with relevant assessment, evaluation, project management, and reward systems. By leveraging the leadership of the technological innovation leadership group, it enhances the standardization and systematization of management of R&D projects, thereby effectively advancing the steady and efficient progress of various R&D innovation initiatives.

In 2024, we continued to elevate our investments in technological innovation and talent development, strategically aligning these efforts with our core objectives and key priority areas. We expanded our channels for attracting innovative industry talent, enhanced our talent incentive mechanisms, and strengthened internal training and exchange platforms. These initiatives are designed to cultivate a robust reserve of scientific and technological talent to support the Company's modernization efforts.



2024 Technology Management Training and Education Campaign of Key Points of Technology Management

Innovation Development

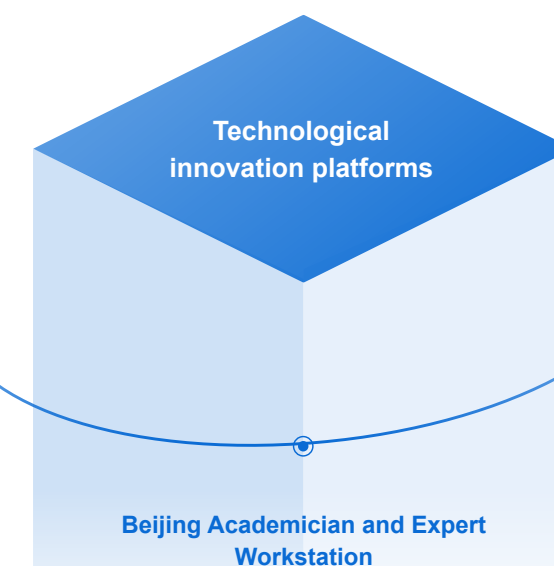
We concentrate on enhancing collaborative innovation among industry, universities, research institutions and applications (IURA), actively spearheading technological advancements and solutions to challenges. By adhering to the Science and Technology Work Management Regulations and the Science and Technology Achievement Transformation Management Measures, we facilitate the conversion of research and development outcomes into tangible productivity. This approach fosters the cultivation and development of new productive forces, continuously generating fresh momentum and competitive advantages.

Innovation R&D Platforms

We concentrate on enhancing collaborative innovation among IURA, actively spearheading technological advancements and solutions to challenges. By adhering to the Regulations on the Management of Scientific and Technological Work and the Science and Technology Achievement Transformation Management Measures, we facilitate the conversion of research and development outcomes into tangible productivity. This approach fosters the cultivation and development of new productive forces, continuously generating fresh momentum and competitive advantages.

The Joint Innovation Key Laboratory for Electrochemical Energy Fire Safety under the Ministry of Emergency Management

Led by China Power, the laboratory focuses on cutting-edge fundamental theories, major original innovations, disruptive technologies, and the development of advanced equipment in electrochemical energy fire safety. It drives the innovative development of the electrochemical energy fire safety and emergency rescue industry, promoting the improvement and modernization of the emergency management system and capabilities within the electrochemical energy sector.



Xinyuan Taili, in collaboration with academician Wang Jiyang, has established a workstation focused on developing the technological system for assessing and utilizing geothermal energy development potential. This initiative accelerates the transformation and application of scientific and technological achievements, as well as talent development, achieving a clean energy supply demonstration in the Liangxiang Geothermal Field in Beijing's Fangshan District. It promotes the formation of an internationally influential new model for geothermal industry development.

Joint Power Membrane Engineering Laboratory at the National High-Performance Membrane Materials Innovation Center

CP Hua Chuang is responsible for establishing the Power Membrane Engineering Laboratory at the National High-Performance Membrane Materials Innovation Center. This laboratory, a national-level innovation center, is dedicated to advancing the industrialization of high-performance power membrane materials. It plays a key role in the engineering and industrialization of critical technologies in the power membrane materials sector and is committed to addressing the challenges hindering the development of the industry. This initiative is of significant importance for filling the gap in domestic R&D of power membranes and achieving the domestic substitution of power membranes.

Shared development with various parties

The Group actively engages in innovation seminars and technology forums, leveraging the resource advantages of industry, universities and research institutions (IUR) collaborations to work with various stakeholders in advancing the development of a new energy system. It integrates efforts to address key technological challenges and implement upgrades. In 2024, the Company signed strategic cooperation agreements with institutions such as Hong Kong Polytechnic University, North China Electric Power University, and the China Academy of Safety Science and Technology. Through resource sharing, expert exchanges, joint R&D activities, and other forms of collaboration, the Company explores new pathways for energy transition and sustainable development.



In 2024, the Group established partnerships with a total of

36 IUR organizations

Collaborative project between CP Hua Chuang and North China Electric Power University Suzhou Research Institute

In July 2024, CP Hua Chuang and the North China Electric Power University Suzhou Research Institute launched a collaborative project focused on Data Mining and Intelligent Control System Development for Desulfurization Islands. The project aims to enhance the operational efficiency and environmental performance of desulfurization islands by utilizing advanced data mining technologies and intelligent control systems. Its goal is to drive green development and the intelligent transformation of the power industry.

Technological innovation achievements

The Group closely aligns with the strategic direction of green, low-carbon, and intelligent development, continuously strengthening its independent R&D capabilities. It actively promotes the effective transformation and application of scientific and technological achievements, providing strong support for technological transformation and development of industries. In 2024, the Group made significant progress in technological innovation, with 293 newly authorized patents and 482 patent applications.

We actively explore deep integration pathways for the intelligent transition and safe production of thermal power operations, building a new power system that is safe and efficient, clean and low-carbon, flexible and adaptable, and intelligently integrated. In 2024, our Key Technologies and Applications of Holographic Visualization Operation and Inspection for Thermal Power Units with 'Full Domain, Collaborative, and Online' Capabilities and Intelligent Monitoring System were awarded the First Prize for Scientific and Technological Progress by the State Power Investment Corporation. This has demonstrated our technological innovation capabilities.



293 newly
authorized patents



482 patent
applications

Data-driven unmanned active safety energy storage power station intelligent operation centralized control system

This achievement focuses on the proactive safety and intelligent operation reform of energy storage power stations. It has established an advanced management and control system designed to enhance the proactive safety of these facilities, characterized by horizontal data integration, vertical functional collaboration, unified interface interaction, and flexible expansion capabilities. As a result, the system significantly alleviates the workload associated with operation, maintenance, and monitoring, while also mitigating safety risks and enhancing the reliability of equipment operation and decision-making processes. This system has been implemented across various provinces and cities, including Shandong, Guizhou, Jiangsu, Qinghai, and Anhui. Its deployment has further improved the safety and dispatch reliability of energy storage power stations, thereby providing robust support for the development of the national new power system.



Unmanned Active Safety Energy Storage Power Station Intelligent Operation Centralized Control System passed the evaluation

Key Technologies and Applications of Holographic Visualization Operation and Inspection for Thermal Power Units with 'Full Domain, Collaborative, and Online Capabilities

The project primarily addresses issues such as low intelligence and limited application scenarios in the digital construction of safe production for thermal power operations under the new power system. It innovatively constructs a full-domain data monitoring model, proposes key equipment fault diagnosis methods and optimization strategies, and develops a holographic visual cloud-edge collaborative platform. This enables early fault warning, accurate diagnosis, and intelligent maintenance, significantly enhancing the reliability and operational efficiency of thermal power equipment and promoting the deep integration of intelligence and safe production.



Intelligent Monitoring System

This system leverages real-time data analysis and facilitates human-machine interaction. It is supported by a safety data platform, linking the data center of the smart power plant at the upper level with the distributed control system (DCS) for automatic cruise and optimization control at the lower level. The system offers intelligent interfaces for operators monitoring the control panels. By integrating expert experience with big data analysis, it enhances the efficiency and quality of panel monitoring. Its successful implementation in the units of Pingwei No.3 Power Plant has resulted in precise online analysis of unit status.

Performance of China Power's Scientific and Technological Innovation Achievements

Indicator	Unit	2024	2023
R&D expenses	RMB'000	352,424	306,351
R&D expenses as a proportion of revenue	%	0.65	0.69
Number of R&D personnel	person	917	733
Number of scientific research training activities	time	18	37
Number of persons participating in scientific research training activities	person-time	511	1,913
Hours of scientific research training activities	hour	166	366
Number of technological innovation platforms awarded during the year	platform	8	8
National level	platform	-	3
Provincial level	platform	8	5
Technological innovation projects in the year	project	354	338
Total number of authorized patents by the end of the year	patent	1,370	1,083
Authorized invention patents	patent	305	198
Authorized utility model patents	patent	1,055	878
Authorized design patents	patent	10	7
New patents authorized during the year	patent	293	198
Authorized invention patents	patent	121	53
Authorized utility model patents	patent	169	145
Authorized design patents	patent	3	0
New patents applied for during the year	patent	482	414
Invention patents applied	patent	306	280
Utility model patents applied	patent	168	131
Design patents applied	patent	8	3
Number of honorary awards for technological innovation	award	39	23

Standards Development

As a leader in the power industry, China Power plays an exemplary role in continuously driving industry progress. Focusing on photovoltaic storage, charging, and new energy technologies, thermal power generation and steam turbine operation, and environmental protection and emission control, the Company has formed multiple management documents, further enhancing the standardized management level of the industry. In 2024, the Group led or participated in the formulation and revision of a total of nine industry standards.



The first industry standard where Shandong Energy played a role is released and implemented

In 2024, the power industry introduced the Code for Construction Technology Inspection and Testing of Civil Engineering in Electric Power Construction (DLT 5710-2023), a standard in which Shandong Energy played a key role in its development. This standard aims to regulate the inspection and testing management activities related to civil construction technology in power engineering projects, including new energy initiatives, thereby providing a foundational framework to ensure the quality of inspections and tests.

As the sole power generation enterprise in the new energy sector involved in the creation of this technical standard, Shandong Energy has showcased its core professional expertise and significant influence within the industry.

Standards Development Performance

Indicator	Unit	2024	2023
Development of standards	standard	21	35
National standards	standard	1	3
Industrial standards	standard	9	16
Group standards	standard	11	16

Intellectual Property Rights

China Power adheres strictly to the Trademark Law of the People's Republic of China and Patent Law of the People's Republic of China. The Company has established and rigorously enforces internal policies, including the Regulations on Intellectual Property Management, the Science and Technology Achievement Transformation Management Measures and the Professional Intellectual Property Service Providers Management Measures. Designated leaders and relevant personnel oversee intellectual property matters, ensuring a standardized management process. In addition to safeguarding against infringements on others' patent rights, China Power actively organizes its intellectual property, effectively protecting its scientific and technological innovations. Notably, in 2024, China Power reported no litigation cases related to intellectual property rights.

Service Excellence

China Power upholds the philosophy of responsible operations, regarding service quality as its lifeline. The Company continuously improves the quality and efficiency of power supply, providing users with cleaner, safer, and more reliable energy solutions and creating a superior electricity consumption environment.

Quality Management

In response to the diverse characteristics of its industrial projects, China Power has developed tailored quality management policies, including the Implementation Measures for Quality Management of Thermal Power Engineering Construction and the Measures for Quality Management of New Energy Engineering Construction. A comprehensive quality management network has been established, involving the Thermal Power Management Department, New Energy Management Department, and the Science and Technology Information and Emerging Industries Center as the primary departments. The Safety, Quality, and Environmental Protection Supervision Department serves as the supervisory body, while construction and operation units are designated as the main responsible entities. This structure clarifies quality management responsibilities and standardizes quality-related practices.

In 2024, we enhanced the operational control of power equipment, leading to improvements in project quality and power quality, thereby ensuring the safe, stable, and reliable operation of the units. Our focus was on standardized quality management within strategic emerging industries, which included refining the management system and strengthening product oversight. To bolster the reliability of unit equipment, we implemented robust risk management and control measures, such as unit class maintenance, hazard identification, and preventive control strategies. These efforts ensured the safe and stable operation of the units and significantly reduced unplanned outages. In terms of quality management, we established and refined a management system for maintenance documentation, creating a cohesive maintenance operation document system characterized by a unified format, comprehensive content, rigorous procedures, and standardized implementation. We standardized maintenance operations and conducted third-party independent quality assurance supervision during Class A and Class B maintenance to enhance compliance and effectiveness in maintenance management. In our daily production and operations, we established a technical supervision organization. Utilizing a digital application platform for technical supervision, we effectively monitored and corrected the implementation of technical oversight throughout the production management process, continuously advancing the quality management framework. In 2024, the Company and 22 subsidiaries successfully achieved ISO 9001 quality management system certification.



Thermal power



- China Power has revised its policy documents, including the Measures for the Management of Thermal Power Technical Supervision and the Measures for the Management of Quality Assurance Supervision of Thermal Power Maintenance. These revisions enhance the management responsibilities across organizational structures at all levels and clarify the requirements for technical management and supervision.
- In 2024, the Group's coal-fired power generation achieved an equivalent availability factor of 91.92%, while natural gas power generation reached 100%. The thermal efficiency for coal-fired power generation was 42.99%, and 62.79% for natural gas power generation.
- Unit 5 of Changshu Electric Power and Unit 4 of Pingwei Power Plant received the prestigious title of National Benchmark of Reliability Power Generator Unit from the China Electricity Council.

New energy

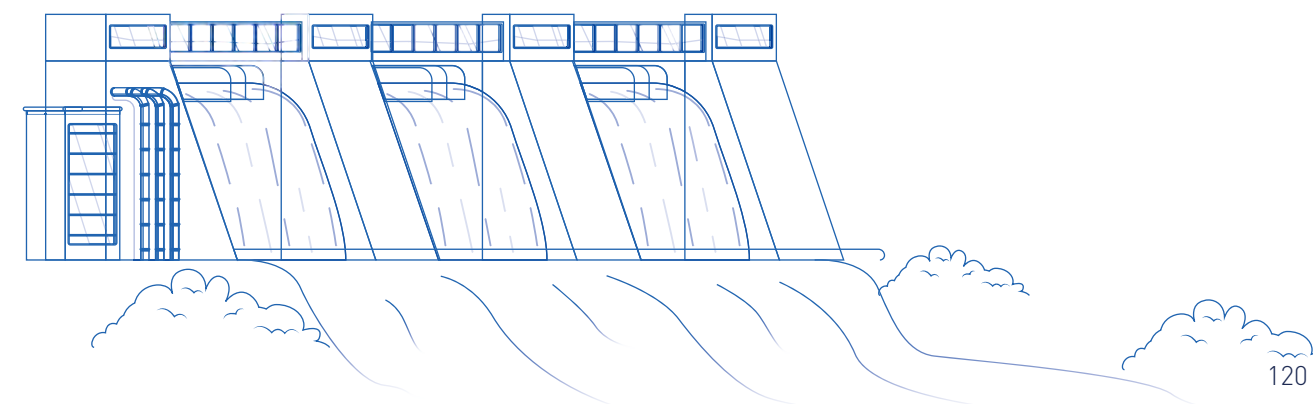


- China Power has revised its policy documents, including the Measures for the Management of Process Control of Maintenance Quality at New Energy Power Stations (Trial) and the Measures for the Management of Maintenance Plans at New Energy Power Stations (Trial). These revisions comprehensively standardize the requirements for maintaining quality in the process control of new energy power stations.
- In 2024, the Group's new energy power generation achieved an operation coefficient of 99.2%, demonstrating its commitment to high-efficiency operational capabilities.

Strategic emerging industries



- Xinyuan Smart Storage has released the Quality Supervision and Management Regulations and the After-Sales Service Management Measures, standardizing quality supervision and management efforts and promoting quality improvement and efficiency enhancement. The company continuously optimizes product and service quality.
- In 2024, the Group did not experience any major liability incidents related to product safety and quality.



Reliable Energy Supply

China Power is proactively responding to the government's initiatives by organizing stable production and ensuring a reliable energy supply. This effort aims to meet the energy needs essential for social and economic development, as well as for the well-being of the people, ultimately achieving a safe and dependable energy provision.

We have developed China Power's 2024 Energy Supply Assurance Work Plan and China Power's Peak Winter Season Energy Supply Plan. Under the guidance of the energy supply assurance leadership group, we have established seven specialized working groups tasked with critical responsibilities, including power and heat supply, fuel assurance, and work safety. To maintain a steady supply of coal-fired power, we strategically stockpile coal during off-peak periods, enhance operational supervision and maintenance of our units, and ensure the effective execution of energy supply assurance projects.

Fuel supply

- We have developed the Work Plan of Procurement and Coal Storage for Peak Summer (Winter) Seasons, which includes comprehensive arrangements for coal procurement and dispatch. We proactively planned and stored coal during off-peak periods. In 2024, we stored 2.377 million tons of coal for peak summer and 2.88 million tons for peak winter.
- Additionally, we opened procurement channels for imported coal, resulting in the purchase of 160,000 tons of Colombian coal in 2024.



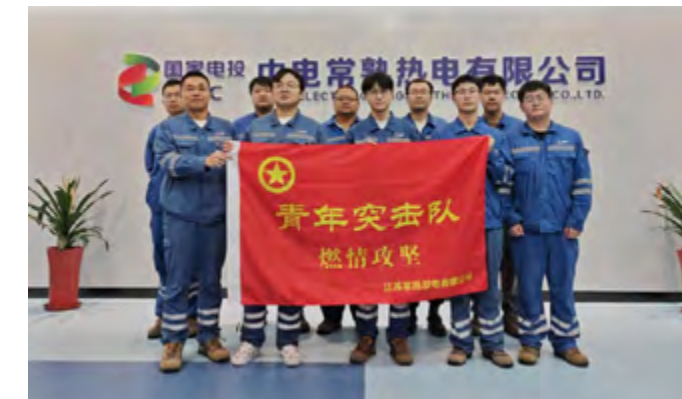
Production stability

- To ensure stable production, we conduct thorough investigations of potential hazards and maintain strict quality management during unit maintenance. We are committed to establishing a robust safety net and rigorously controlling quality.
- Our efforts include comprehensive management to minimize unit outages. We have implemented "the Zero Unplanned Outage Deposit" to enhance operational efficiency and equipment reliability.
- Furthermore, we enhance refined operational management, deepening benchmarking analysis, and establish the dual benchmarking model for energy consumption. We also organize small index competitions and other initiatives to continuously improve the operational health of our units.



Shouldering the responsibility of ensuring power supply during the peak summer season

Changshu Thermal Power has implemented various measures to effectively play its critical role in ensuring a stable power supply. The company actively addresses the needs of the power grid, and is dedicated to maintaining the safe operation, reliable startup, and shutdown of its units. During the peak summer season of 2024, it successfully executed 25 unit startup and shutdown operations in a single day. Additionally, the company kept two units running continuously for 17 days, achieving a total power generation of 168,000 megawatt-hours and supplying 195,000 tons of heat. Many of its production metrics have set new historical records.



Youngsters Proudly Raised the Flag of the Robust Team for Tough Battles

On 24 August, Chengdu Comprehensive Energy was honored to receive a banner from the State Grid Wenjiang Power Supply Company. Throughout the period of ensuring energy supply, the company maintained optimal operation of its gas turbines, achieving zero equipment failures and no unplanned unit outages. It successfully generated 6,410 megawatt-hours of electricity, fulfilling its energy supply responsibilities during the Chengdu FISU World University Games.



Chengdu Comprehensive Energy Received the Presented Banner

Wuhu Power addressed challenges by strengthening internal management and enhancing equipment inspection and maintenance. The organization undertook preparatory effort in personnel organization, production technology, safety, and logistics. As a result, it successfully navigated the peak summer season in 2024 and was recognized as one of the top-performing units in power supply during this critical period in Anhui Province by the Leadership Group for Ecological Civilization Construction in Anhui Province.



Shouldering the responsibility in ensuring power supply during the peak winter season

Shentou Power has developed a comprehensive work plan to secure the supply of thermal coal during the peak winter season. The company effectively monitored critical factors such as coal mine production, storage capacity, loading operations, and transportation equipment to ensure a reliable coal supply. Additionally, it enhanced the management of equipment defects across coal receiving, unloading, storage, and feeding systems. Training sessions were conducted on coal sampling, preparation, analysis, and the operation of bulldozers and loaders, thereby continuously enhancing the professional skills of its workforce. Through these efforts, Shentou Power demonstrated its commitment to ensuring a stable energy supply.



Shentou Power's Effort into Supplying Coal for Power Generation

Shangqiu Thermal Power embraces the service philosophy of addressing winter issues in summer by diligently maintaining and repairing thermal facilities during the non-heating season. This proactive approach enhances the foundation for work safety. During the period where no heating supply is needed, the company successfully addressed defects across the entire 42-kilometer main heating pipeline network, performed maintenance on six heat stations, and resolved 24 significant defects. Additionally, it inspected 267 heat wells and completed repairs on the casings of six wells. The information system was optimized with the addition of 13 new functions, ensuring the safe and stable operation of the heating system.



Shangqiu Thermal Power's Onsite Inspection

Customer Care

China Power actively aligns with market development trends, enhances research on electricity system reform policies, empowers customers, and explores new growth avenues. We prioritize market service awareness and consistently strengthen our brand influence and market competitiveness.

We adhere strictly to the Law of the People's Republic of China on the Protection of Consumers' Rights and Interests, ensuring comprehensive follow-up and feedback on after-sales management, information maintenance, and user visits. Our goal is to prevent deviations in users' power consumption due to factors like improper management while providing value-added services.

We are committed to upholding the legitimate rights and interests of our customers. Guided by the ISO 27001 information security management system and supported by our cybersecurity management framework, we have established internal protocols to safeguard customer information confidentiality, ensuring that all data obtained during business activities remains strictly confidential. Additionally, we have implemented a robust risk management and security audit mechanism, conducting regular comprehensive information security inspections and evaluations. This proactive approach allows us to promptly identify and address potential security vulnerabilities, effectively mitigating information security risks. In 2024, the Group did not have any incident of customer information leakage.

Throughout the year, we organized the Customer Service Month campaign across all subsidiaries. By offering diverse user services, including return visits to partner user units and face-to-face discussions on customer feedback, we enhanced our understanding of user needs, fostering mutual benefit and collaboration with our customers in pursuit of shared development.

Diverse customer service initiatives

Each subsidiary has thoroughly updated and enhanced their promotional brochures to reflect the latest business developments, effectively showcasing the company's strengths and core competitiveness from various perspectives.



Changshu Electric Power has invited users to visit for discussions, negotiate partnerships, and collaboratively pursue growth. It recently held a signing ceremony with China Pingmei Shenma Group to establish cross-provincial green power cooperation, setting a benchmark for green power transactions and encouraging similar enterprises to engage in collaboration.



Shentou Power Plant II has conducted follow-up visits to key customers, discussing ways to optimize the cooperation mechanism for power transactions and broaden the scope of collaboration. Building on existing projects, both parties have enhanced communication, leveraged each other's strengths, and fostered practical, efficient, and in-depth cooperation in energy conservation, consumption reduction, and project development.



Yaomeng Energy consistently delivers value-added services, including the inspection of insulation tools and transformer maintenance, ensuring users access to a more convenient, efficient, and personalized experience, which in turn boosts customer satisfaction and loyalty.



Changshu Power Distribution has developed an energy consumption footprint system for the Beijing-Shanghai High-Speed Railway Company, laying the groundwork for refined, digital, and intelligent energy management, addressing users' urgent needs for electricity consumption and cost analysis and reporting.



Additionally, we conduct customer satisfaction surveys via our WeChat official account, assessing service quality, effectiveness, timeliness, complaint resolution, and cooperation needs. This initiative deepens our service offerings and enhances our brand influence. We have implemented a robust complaint handling mechanism, treating every customer with transparency and fairness, ensuring rapid responses and efficient resolution of customer issues. We achieve a response time of within 2 hours for domestic service complaints and within 24 hours for international inquiries. In 2024, the Company achieved a customer satisfaction of 100%, with no complaints regarding products or services.



In 2024, the Company achieved a customer satisfaction of

100%

China Power's Performance on Customer Service

Indicator	Unit	2024	2023
Number of service-related complaints received	case	0	0
Customer satisfaction	%	100	100



Responsible Procurement

China Power is dedicated to establishing a sustainable and highly resilient supply chain by integrating ESG principles with supply chain management. The Company regularly identifies, assesses, and manages significant ESG risks among its suppliers, actively promotes green procurement and transparent procurement strategies, empowers suppliers in capacity building, and collaborates to create a responsible and trustworthy supply chain ecosystem.

Overview of Suppliers

In 2024, the Group engaged with a diverse array of 7,158 suppliers across multiple categories, including fuel procurement, infrastructure construction, production and informatization projects, office supplies, management consulting services, and scientific research initiatives.



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7,158 suppliers across multiple categories

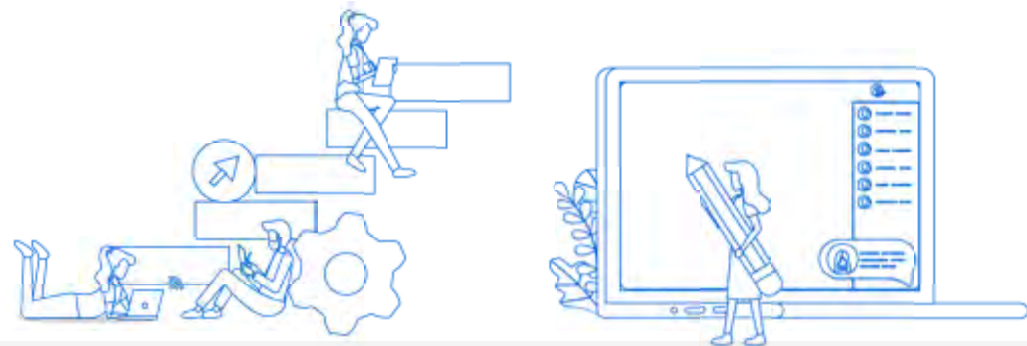
China Power's Suppliers by Region

Indicator	Unit	2024	2023 ¹⁹
Number of suppliers	/	7,158	8,029
Including: domestic suppliers	/	7,091	8,014
Percentage of domestic suppliers	%	99.06	99.81
North China	/	1,085	1,053
East China	/	1,833	1,870
Central China	/	1,143	1,248
South China	/	963	-
Southwest China	/	915	-
Northwest China	/	675	822
Northeast China	/	477	471
Overseas suppliers	/	67	15
Percentage of overseas suppliers	%	0.94	0.19
Suppliers exited	/	814	455

¹⁹ In 2023, the number of suppliers from Southern China (South China and Southwest China) was 2,550.

Supply Chain Management

We are committed to the principles of fairness, justice, and transparency, implementing a series of bidding and supply chain management policies. This includes the Procurement Management Regulations, Bidding and Procurement Supervision and Management Measures, and Fuel Procurement Management Regulations. Furthermore, we comply with the relevant legal standards outlined in our supplier agreements, striving to maintain a fair competitive market environment. We integrate environmental and social considerations into our supplier management practices by developing comprehensive Supplier Management Measures that apply across the entire Group. Our supplier management policies clearly define specific expectations for suppliers regarding product quality, business ethics, and environmental impact. We also comply with the applicable laws and standards in the supplier agreements, committing to creating a transparent, healthy, and efficient procurement and supply chain management system. For more information, please consult the *China Power International Development Limited Supplier Management Policy*, which can be found in the ESG Policies section on our website.



Supplier Management Mechanism

Supplier admission

- In the admission process, the Company evaluates suppliers based on credit qualifications, quality assurance, performance capabilities, legal compliance, and business relevance, aligning these criteria with specific procurement categories. We require suppliers to submit information regarding their certifications in areas such as environmental protection, quality management, and occupational health and safety, and we include those who meet our standards in the List of Qualified Suppliers.
- The Company requires all suppliers to comply with the anti-corruption laws and regulations of their respective countries and regions. We have established anti-corruption policies and related mechanisms to verify compliance.
- The bidding documents explicitly state that suppliers must comply with measures related to intellectual property rights, including ownership, licensing, and claims. Suppliers are also required to obtain certification of the three standards from the International Organization for Standardization (ISO). Furthermore, we specify the quality requirements, relevant parameters, and the maximum allowable deviation range for the procurement subject, along with the obligations and liabilities of suppliers in the event of a breach of contract.

Supplier management

- The Company continuously identifies and regulates supply chain risk points related to environmental and social aspects, stemming from commodity prices, project cost control, and other areas. It enhances key risk analysis and response mechanisms for the supply chain by screening out the top five risks: work safety, corruption, environmental pollution, financial status, and product quality. Focused management is conducted on these critical risks.

China Power’s Supply Chain Management

Indicator	Unit	2024	2023
Suppliers subject to Supplier Management Procedure	supplier	7,158	8,029
Including: Suppliers screened according to environmental and social criteria	supplier	5,399	6,027
Suppliers screened according to environmental and social criteria	%	75.43	75.07
Critical risk incidents in the supply chain	incident	0	0
Suppliers involved in critical supply chain risk incidents	supplier	0	0
Persons involved in critical supply chain risk incidents	person	0	0

Supplier review and assessment

- The Company conducts performance evaluations at various stages for all suppliers involved in procurement activities, adhering to the principle of dynamic updates and annual evaluations. Based on the evaluation results and the nature of strategic cooperation, suppliers are categorized as strategic suppliers, excellent suppliers, good suppliers, general suppliers, or unqualified suppliers. Suppliers demonstrating a high degree of specialization, strong market acceptance, and long-term partnerships, who have signed strategic cooperation agreements with the Company and have shown effective collaboration, are designated as strategic suppliers.
- In 2024, we further refined our supplier classification management mechanism. Based on contract performance and comprehensive evaluation results, suppliers are now classified into Grade I, Grade II, and other categories. This approach enhances resource allocation and improves the overall efficiency, stability, and reliability of the supply chain.

Supplier misconduct and exit management

- The Company has compiled a list of suppliers exhibiting improper behaviors and implements a graded punishment system for illegal and unethical actions, including bid rigging, fraud, and improper performance. We utilize two evaluation methods: Single Order²⁰, and Multiple Orders²¹.
- In 2024, in line with the Supplier Management Measures, the Company took disciplinary actions toward 305 suppliers displaying serious misconduct. Additionally, we incorporated 73 suppliers with severe misconduct censored by SPIC in the "blacklist", enforcing the one-vote veto system²².

²⁰ Single Order means assessing each order individually.

²¹ Multiple Orders means evaluations from several orders are combined to produce a comprehensive assessment of the supplier.

²² This veto allows for the immediate rejection of suppliers with critical misconducts.

Synergistic Development with Suppliers

We actively support the growth of our suppliers by organizing supplier training sessions, exchange conferences, and other activities, fostering mutually beneficial and win-win partnerships. This approach promotes the collaborative development of our suppliers. In 2024, the Company conducted 4,724 supplier training and capacity-building activities.



Hubei Company held a strategic partners conference

In 2024, Hubei Company actively pursued innovations in its business model and technology. Embracing an open approach, the company enhanced collaboration with local governments and strategic partners, culminating in a strategic partners conference. By integrating the supply chain, industrial chain, and value chain—referred to as the integration of three chains—Hubei Company broadened its network for development. This initiative facilitated the efficient allocation of resources, accelerated technological advancements, and fostered industrial upgrades, ultimately creating a more interconnected, efficient, and collaborative industrial development ecosystem.



Scene of the Strategic Partners Conference of Hubei Company



Heilongjiang Company held discussions on suppliers' performance capabilities

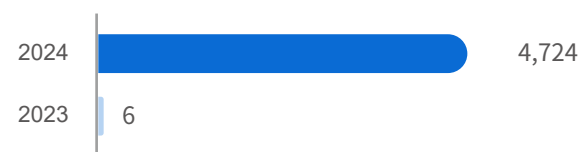
On 19 July 2024, Heilongjiang Company convened a discussion meeting to evaluate the performance capabilities of the bid winner for the supervision unit of the Baoquan Wind Power Project in Kedong and the Yongquan Wind Power Project in Keshan. The meeting offered a comprehensive interpretation of the contract requirements and the responsibilities of the supervision unit, highlighting the standards related to safety, quality, progress, and cost. It served as a valuable opportunity for all participating suppliers to engage in learning and communication, fostering standardized operations during project implementation and establishing a strong foundation for future long-term cooperation.



Discussion Meeting on Suppliers' Performance Capabilities of Heilongjiang Company

Supplier Training or Capacity Building

Number of supplier training or capacity building activities²³



In 2024, training or capacity building coverage among suppliers

60.42%

²³ Starting from 2024, in order to strengthen suppliers' awareness of integrity and self-discipline, the Company organizes online business ethics capacity building activities before signing procurement contracts with suppliers and includes the number of such activities in its statistics.

Transparent Procurement

China Power is committed to strengthening the management of suppliers' business ethics and integrity. The Company has made significant strides in enhancing the supervision and management of fuel and materials bidding and procurement processes. In compliance with laws and regulations, it mandates that all business contracts adhere to the integrity management policy, clearly defining the responsibilities of both parties involved. Suppliers found to be using bribery to influence bid evaluations or engaging in actions that compromise the fairness of the evaluation will face serious consequences for improper conduct, aimed at preventing various illegal and disciplinary violations. Prior to contract signing, suppliers must also sign the Integrity Agreement for Business Contracts. Furthermore, the Company requires all suppliers to implement a robust compliance management system, establish and enforce anti-corruption policies, and conduct regular internal audits and compliance inspections.



Procurement transparency awareness initiative at Shanxi Company

In January 2024, Shanxi Company organized a special educational film-watching of Sustained Efforts and In-depth Promotion to enhance the practice of transparent procurement. To address integrity risks in the procurement sector, a comprehensive supervision and standardization mechanism has been implemented, ensuring transparency and fairness throughout all stages, including tendering, bidding, bid opening, bid evaluation, and bid determination. This initiative significantly enhances the standardization and efficiency of procurement activities, providing robust support for the Company's healthy development.

Green Procurement

In bidding and procurement activities, we thoroughly consider factors such as environmental friendliness, green and low-carbon practices, and energy conservation. We continuously promote green supply chain management and supervise by integrating environmental protection and sustainability into our supplier management strategies. This includes selecting suppliers that meet environmental requirements and promoting the green transformation of the entire supply chain.

Procurement of green products

We prioritize products that feature green labels and utilize low-pollution raw materials and components. For significant procurement projects, we require environmental-related certifications as part of the qualification criteria.

Pollutant emission control for suppliers

We expect suppliers to diligently implement environmental protection initiatives, develop comprehensive plans for environmental protection measures, and ensure that waste gases, wastewater, dust, and other byproducts generated during construction are managed in strict compliance with legal standards.

04

Move Forward Together

Employee Wellbeing and Developmet

China Power is dedicated to the fundamental principle of valuing talent. The organization strives to protect the essential rights and interests of its employees while actively promoting their empowerment and development. It fosters a nurturing environment for talent development, consistently enhancing employees' sense of happiness and belonging. By collaborating closely with its workforce, China Power injects a robust internal drive into the Group's high-quality development.



Indicator	Unit	2024	2023
Percentage of employees covered by training programs	%	100	100
Total hours of employee training	hour	1,202,518	965,950
Total investment in employee training	RMB'000	101,898.2	94,523.5

Responding to the Sustainable Development Goals (SDGs) of the United Nations



Rights and Interests of Employees

China Power regards human capital development as the fundamental guarantee for its long-term development. The Company continuously invests in talent recruitment, career development, and employee benefits, striving to build a high-quality, professional, and innovative workforce (for details, please refer to the *Human Capital Development* under the ESG Issue Management section on the Company's website).

In 2024, the Group had a total of 14,776 employees, including 952 new employees throughout the year. The overall employee turnover rate stood at 3.13%.

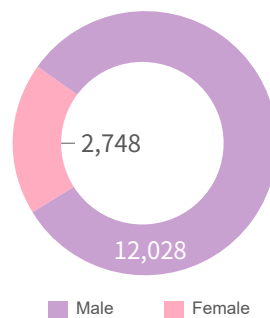


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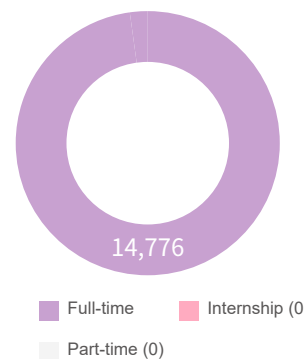
14,776 employees

China Power's Employee Data 2024

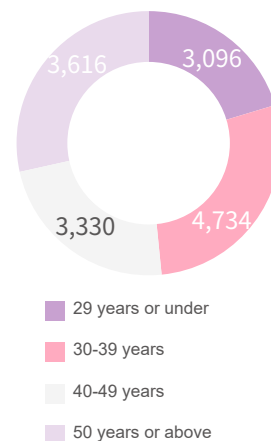
Employees by gender



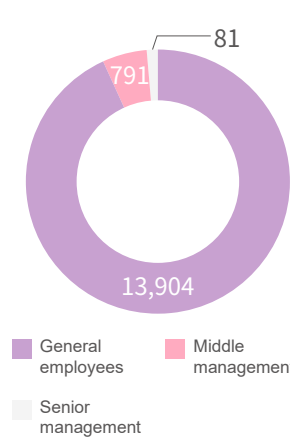
Employees by contract type



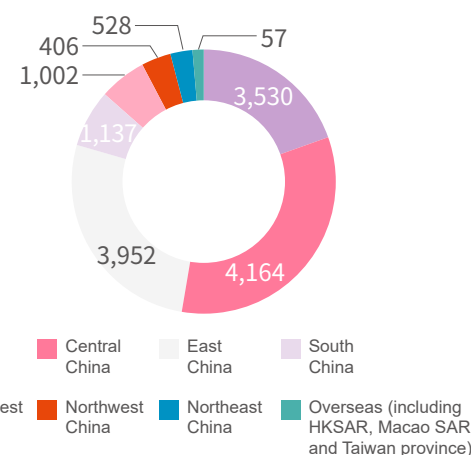
Employees by age group



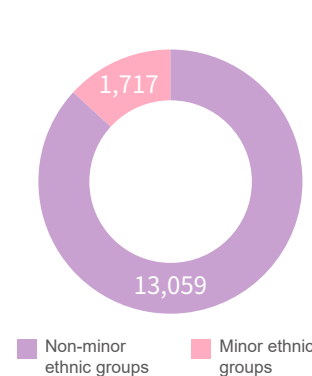
Employees by job position



Employees by region



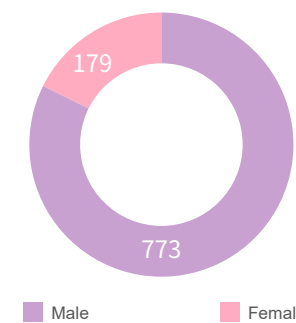
Employees by ethnic group



Number of New employees

952

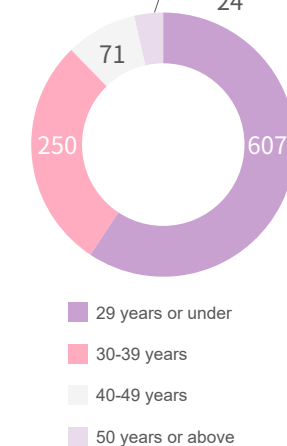
New employees by gender



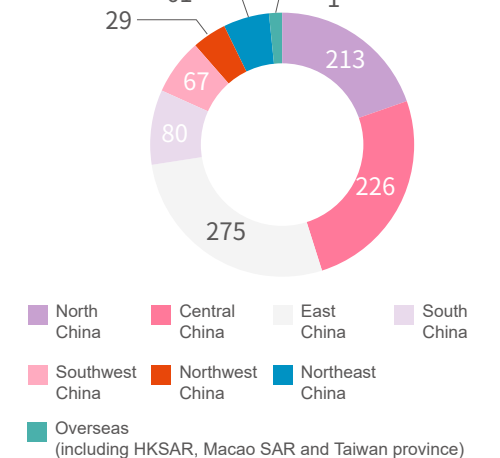
Percentage of new employees to total employees

6.44%

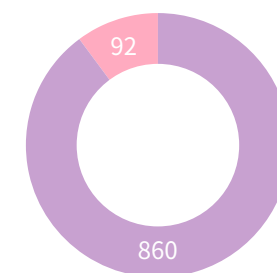
New employees by age group



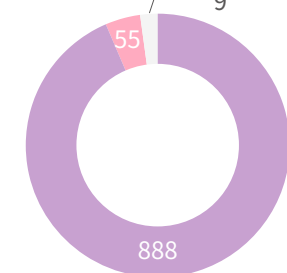
New employees by region



New employees by ethnic group



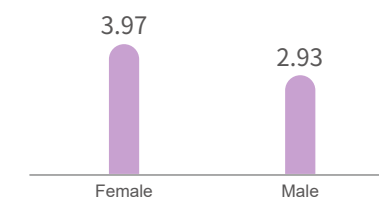
New employees by job position



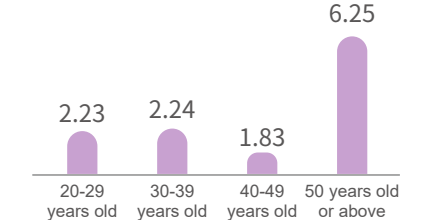
Total employees turnover rate²⁴

3.13%

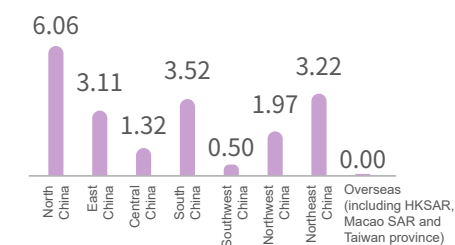
Employee turnover rate by gender



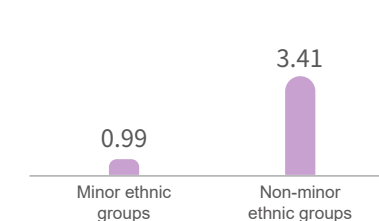
Employee turnover rate by age group



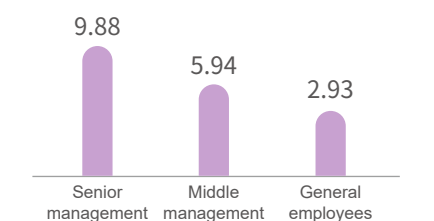
Employee turnover rate by region



Employee turnover rate by ethnic group



Employee turnover rate by job position



²⁴ The turnover rate represents the percentage of employees who voluntarily resign, retire, or pass away, thereby ending their employment with the Group during the given reporting period. To calculate the turnover rate for each category, use the formula: (number of employees exiting within that category ÷ total number of employees in that category) × 100%.

Lawful Employment

China Power complies with laws and regulations, including the Labor Law of the People’s Republic of China and Labor Contract Law of the People’s Republic of China, the Employment Ordinance of Hong Kong, and Provisions on the Prohibition of Using Child Labor. We have developed internal human resource management policies such as the Employee Recruitment Management Measures, Management Measures for the Recruitment of College Graduates, and Employment Contract Management Measures, aimed at continuously standardizing and enhancing our employment practices.

We align ourselves with international standards, including the Universal Declaration of Human Rights and International Labor Standards. Our employment principles emphasize legality, fairness, voluntariness, equality, consensus through consultation, and good faith. We are steadfast in our commitment to prohibit child labor and forced labor and conduct regular audits to ensure compliance. Any violations are addressed immediately with appropriate legal action. We respect diverse religious beliefs and customs, fully protect legitimate rights and interests of employees, and ensure equal pay for equal work for all employees, regardless of gender.

We advocate for and implement diverse guiding principles in areas such as recruitment, selection, and management. For more details, please refer to the *Diversity Policy of China Power International Development Limited*, available under the ESG policy section on our website. We are committed to setting clear diversity goals and increasing the representation of women in leadership roles. Currently, there is one female member on the Board. Senior management oversees the implementation of diversity and inclusion initiatives to ensure the effective execution of internal policies and the achievement of our diversity objectives. We regularly organize training sessions for all employees on our diversity policies, fostering a diverse and inclusive corporate culture that enhances employees’ sense of identity and belonging. In March 2024, the Remuneration and Nomination Committee reviewed the Board diversity, as well as the overall diversity among employees. This review provided an overview of the Company’s employee demographics and turnover rates for 2023, with the aim of promoting the scale, quality, and structure of the Company’s human resources, assets, and financial resources to better align with its transformation and development needs.

The Company firmly upholds a zero-tolerance policy towards discrimination and harassment across all areas, including recruitment, employment, and promotion. To reinforce its commitment to legitimate rights and interests of employees, it has made a public anti-discrimination policy statement and outlines specific anti-discrimination and anti-harassment system requirements in the Employee Code of Conduct. To ensure all employees fully understand these policies and behaviors, the Company provides comprehensive training sessions. Additionally, it has established a clear escalation process for reporting incidents of discrimination and harassment, along with a dedicated reporting channel that empowers employees to bring forth any concerns without hesitation. The Company is committed to promptly investigating all reports and implementing appropriate corrective actions or disciplinary measures, which may include warnings or suspension, as needed.

China Power’s Gender Diversity Progress

Indicator		Unit	2024	2023	2030 Objective year
Senior management	Total number	person	81	84	9%-11%
	Number of Female	person	5	4	
	Female percentage	%	6.17	4.76	
Administrative staff	Total number	person	4,380	5,757	33%-35%
	Number of Female	person	1,430	1,440	
	Female percentage	%	32.65	25.01	
Technical staff	Total number	person	10,315	8,413	13%-15%
	Number of Female	person	1,313	1,235	
	Female percentage	%	12.73	14.68	


Democratic Management

China Power has developed and refined several policy documents including the Implementation Measures of the Workers’ Congress to optimize its trade union organization and institutional framework. We have established robust communication channels that facilitate employee feedback, ensuring a seamless flow of information in both directions and creating a closed-loop communication system. Through initiatives such as the Workers’ Congress, we uphold employees’ rights to information, participation, and supervision.

We prioritize our employees’ concerns and viewpoints, responding to their needs and suggestions by fostering a culture of two-way communication and establishing diverse communication channels. Our initiatives include SPIC-Home, public disclosure of internal affairs, proposals from staff representatives, the I Have Something to Say suggestion program, and the regular solicitation of rationalization proposals. By continuously enhancing these channels, we ensure that employee suggestions are heard and addressed promptly, fully leveraging the trade union’s role as a vital link.

We have implemented a robust and transparent complaint reporting mechanism for employees to file appeals related to workplace issues, including discrimination, harassment, and unfair treatment. Employees can submit their appeals through channels such as SPIC-Home and a dedicated reporting mailbox. We have established a clear process for handling these appeals, encompassing acceptance, investigation, verification, and feedback. Each step is managed by designated personnel, ensuring that all reported information is kept strictly confidential. To further protect employees, we have instituted comprehensive measures for whistleblower confidentiality, safeguarding their rights and interests.

Additionally, we conduct annual employee satisfaction surveys to monitor shifts in employee sentiment and continuously enhance the overall experience. These surveys cover key areas such as the working environment, career development, compensation and benefits, and teamwork. The survey process is entirely anonymous to encourage honest feedback and ensure the validity of the results. Based on the survey results, we set up a dedicated improvement team to develop and implement targeted strategies that optimize management and operational processes, thereby enhancing employee satisfaction. We have also put in place an effective mechanism for employee participation and feedback, ensuring that survey results and data analyses are promptly communicated to relevant departments and employees. This transparency allows our workforce to clearly understand the Company’s improvement directions and plans. In 2024, the employee satisfaction rate reached over 95%.



Beijing Company conducted research on organization managers

In October 2024, Beijing Company conducted a research initiative on its management team, holding one-on-one discussions with 204 managers and employees. Guided by the principle of listening to the truth and understanding the actual situation, the company engaged directly with frontline managers to gain insights into their needs and concerns. The research aimed to understand the work and personal challenges faced by managers and employees, with a focus on addressing the issues they encountered and providing effective solutions.

Compensation Management

China Power has established a comprehensive salary management system, including the Salary Management Measures, Salary Management Measures for the Management, and Performance Assessment Management Measures. This system ensures a balance between external competitiveness and internal fairness. By considering multiple factors such as employees' job roles, professional skills, and performance, we have created a scientific and equitable salary structure. We have also developed the Employee Benefit Management Measures to ensure that employees receive a range of benefits, including paid annual leave, enterprise annuities, supplementary medical insurance, holiday bonuses, meal subsidies, heating allowances, and heatstroke prevention and cooling subsidies.

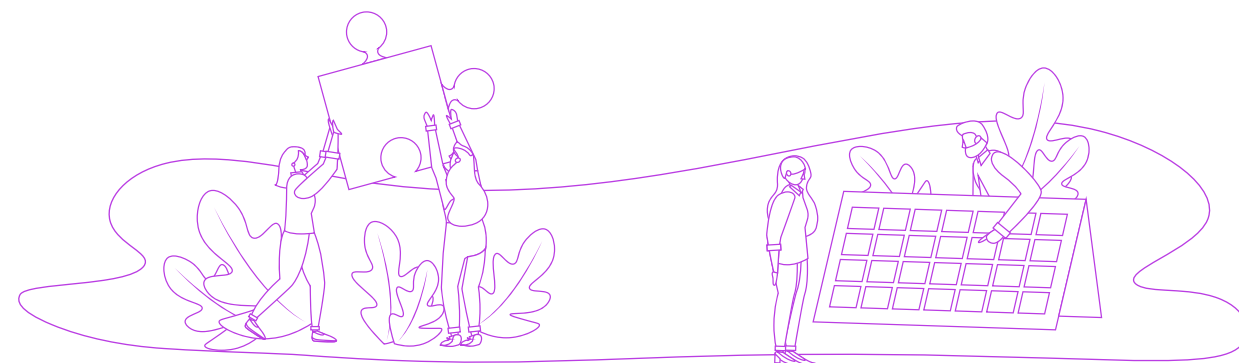
We align performance results with salary incentives, promotion opportunities, and other benefits. Quarterly and annual performance appraisals are conducted for all employees, with performance bonuses distributed based on the appraisal outcomes. We conduct multi-dimensional appraisals on employees' performance, including team-based assessment from supervisors, subordinates, and peers. Additionally, we include key performance indicators in the annual and term comprehensive performance assessment responsibility letters for managers, covering areas such as work safety, ecological protection, and environmental sustainability. Our performance assessment process is differentiated based on job levels to ensure the relevance and effectiveness of the evaluation. Throughout the performance review process, we actively seek employee feedback, establish formal communication channels, and provide timely, specific, and actionable responses. Together with employees, we formulate improvement plans and development goals.

To enhance our incentive and restraint mechanisms and support our transformation, we have developed an equity incentive plan, ensuring the protection of shareholders' interests and aligning employee contributions with benefits. This plan complies with relevant laws, regulations, and guidelines, such as the Trial Measures for the Implementation of Equity Incentives in State-owned Listed Companies (Overseas), the Notice on Regulating the Implementation of Equity Incentive Systems in Listed Companies Controlled by Central SOEs, the Guidelines for the Implementation of Equity Incentives in Listed Companies Controlled by Central SOEs, and the Listing Rules, as well as the provisions of the Articles of Association.

The equity incentive plan is a crucial step in our strategic transformation, supporting the national Dual Carbon goals and our transition to clean, low-carbon development. It also offers long-term incentives to senior management, mid-level managers, and key personnel, aligning their interests with those of shareholders and the Company, and encouraging a focus on the long-term development of China Power. Equity incentives cover 139 employees below the senior management, including leading talents, model workers and technical talents. In 2024, we proactively engaged with various institutions to analyze the future implementation of the second phase of equity incentives. We also completed a thorough evaluation of the first phase of equity incentives for China Power.

Equity incentive performance

Indicator	Unit	2024	2023
Employees covered by the equity incentive plan	employee	173	-
Shares held by employees	10,000 shares	5,867	9,306



Employee Care

China Power is dedicated to creating a warm and harmonious work environment by actively supporting employees in need, and emphasizing the protection of female employees' rights (for more details, please refer to the *Employee Benefits Assurance* under the ESG Issue Management section on the Company's website). We offer all employees a range of non-salary benefits, including marriage leave, bereavement leave, sick leave, family visit leave, maternity leave, parental leave, and other leave systems. In addition, we provide comprehensive medical insurance and annual health check-ups. The Company strictly adheres to national working hour regulations. When special work requirements necessitate extended hours, we arrange compensatory leave or time off in lieu, in accordance with the law. For overtime during statutory holidays, we fully provide overtime subsidies as required, ensuring a proper work-life balance for our employees. For retirees, we offer dual support in both spiritual and material aspects. This includes regular meetings and visits, holiday benefits, medical assistance, critical illness coverage, heating subsidies, and other measures to enhance employees' sense of happiness and belonging, creating a warm and harmonious workplace environment.

Employee Support

China Power actively takes employee care and assistance initiatives in line with internal policies such as the Trade Union Employee Care Management Measures, Critical Illness Assistance Fund Management Measures, and the Employee Care and Support Management Measures.

We prioritize employee health by establishing a Critical Illness Assistance Fund and forming a dedicated committee to manage the fund. In 2024, the Company provided assistance to 46 employees facing critical illnesses, giving out a total of RMB 623,000 in support funds.



Anhui Company launched Cloud Pharmacy and medical resource service

Anhui Company has introduced a Cloud Pharmacy, allowing employees to access online consultations and receive medication delivery. In addition, the company partners with local tertiary general hospitals to offer green channels, medical resource matching, and health guidance services. In 2024, Anhui Company organized health lectures, first aid training, and onsite consultations with physical therapy, benefiting over 100 participants. More than 50 individuals utilized the green channels for medical treatment, one case was connected to medical resources in Shanghai, and over 10 medication deliveries were made.



Anhui Company Launched Cloud Pharmacy and Medical Resource Service



Xinyuan Smart Storage launched the Cooling the Summer, Warming the Hearts initiative

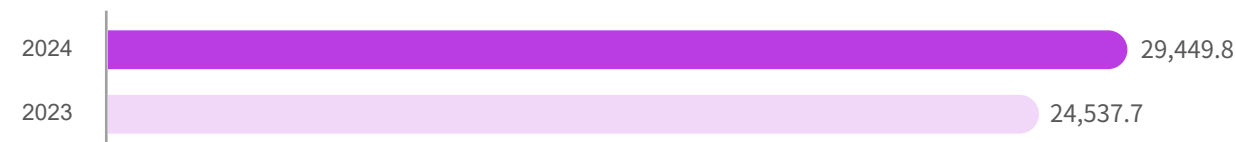
In 2024, Xinyuan Smart Storage launched the Cooling the Summer, Warming the Hearts campaign. It aims to advance the implementation of primary responsibilities for heatstroke prevention and cooling, prevent and control occupational heatstroke incidents, reduce the health risks associated with high-temperature work, and ensure the physical health and safety of employees.



Xinyuan Smart Storage Launched the Cooling the Summer, Warming the Hearts Initiative

China Power's Employee Care and Assistance Performance

Investment into employee care and assistance (RMB'000)



Female Employee Care

China Power places great emphasis on the protection of female employees' rights, strictly adhering to applicable requirements mandated by the state. Female employees are entitled to maternity leave, nursing leave, parental leave, regular gynecological check-ups, and other rights as stipulated by law²⁵. We provide childcare facilities for pregnant and postpartum women and ensure that both male and female employees in Chinese mainland are covered by full maternity insurance, enabling them to enjoy high-level maternity benefits as defined by the state. Each year, we organize International Women's Day activities for female employees and execute targeted policies and measures to foster a more equal, inclusive, and supportive workplace environment.

Cultural and Sports Activities

We regularly organize a variety of engaging and enriching activities to strengthen organization cohesion and enhance employees' sense of belonging. These activities help employees maintain a positive, energetic, and optimistic mindset while fostering a healthy work-life balance.



China Power hosted a team building activity

In December 2024, China Power organized the Concentrating Efforts and Achieving Harmonious Integration, a winter team-building event. Employees were taken on a tour of iconic landmarks such as the Kai Tak Cruise Terminal Park and Victoria Harbour, offering them the opportunity to experience the charm of Hong Kong, the Pearl of the Orient. This activity fostered greater mutual understanding among employees and motivated them to actively contribute to the Company's high-quality development, grounded in their love for the China, Hong Kong, and the Company.



Winter Team Building Activity at China Power

²⁵ In Chinese mainland, female employees are entitled to 158 days of paid leave, and both the employee and their spouse are entitled to 5 days of paid parental leave. Additionally, female employees receive 1 hour of nursing leave per day. In Hong Kong, female employees are entitled to 14 weeks of paid maternity leave, while male employees are entitled to 5 days of paternity leave under qualifying conditions.



Changshu Electric Power welcomed the new year

In December 2024, Changshu Electric Power hosted an event titled with Ignite the Passion for Struggle, Co-create the Future of Changshu Electric Power to celebrate the upcoming New Year. The event attracted over 300 employees, who actively participated in the relay race and the tug-of-war. These activities encouraged employees to strive toward new goals and work together to achieve new developments.



Changshu Electric Power's New Year Welcome Event



Wu Ling Power hosts a social event for single young people

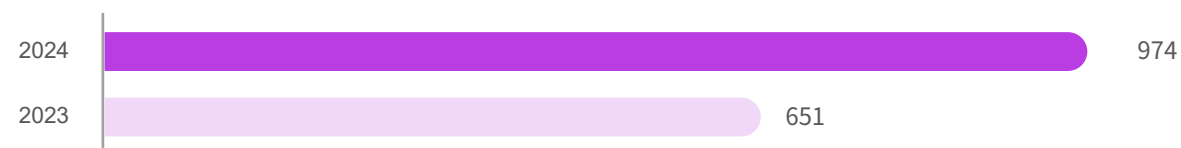
Wu Ling Power collaborates with high-quality organizations to establish a social platform for unmarried youth. The company organizes annual youth social activities, facilitating successful connections among young employees and addressing their marriage and relationship challenges. These efforts greatly enhance employees' happiness and sense of belonging.



Wu Ling Power's Social Event for Young People

Number of Employee Activities Conducted by China Power

Number of employee activities



Employee Development

China Power is dedicated to continuously improving its talent development system by optimizing management and evaluation mechanisms, ensuring clear growth pathways for all employees. The Company actively implements targeted talent development plans aimed at cultivating a pool of professionals whose qualifications and skills align closely with job requirements. Additionally, it promotes fair and diverse development opportunities while providing employees with robust platforms for growth and advancement.

Talent Cultivation

We prioritize employee training and career development, aligning our efforts with our talent reserve strategy and the Education and Training Management Measures. Our strategic planning includes tailored training programs and annual plans that support the goal of building a top-tier talent team. We offer a comprehensive range of training opportunities, including quality assurance training, professional development, job skills training, and specialized programs for emerging managers. This approach addresses the diverse needs of our workforce at various positions and levels while fostering continuous innovation in our talent development practices.



In 2024, the Group's total investment in employee training

101,898.2 RMB'000



The number of participants in employee training (person-time)

219,872



The average training hours per employee were

81 hours



2024 Employee Training Performance



2024 Xinrui Training Camp

Young managers training

We select and send outstanding young managers to the Zhirui Training Camp and Jingrui Training Camp, comprehensively accelerating the growth of young talent. Additionally, we organize the leadership training programs for newly-promoted managers and leaders, effectively enhancing the professional competence, management skills, and leadership capabilities of young managers.



China Power's Skill Competition

Skill competition

We use skills competitions as the primary channel for selecting highly skilled talent and continuously innovate competition organization models. Focusing on the China's power sector, we strengthen the core professional skills advantages of traditional thermal power, enrich competition programs, and innovatively launched the first cybersecurity skills competition to identify and reserve highly skilled IT talent. In 2024, we organized 6 company-wide vocational skills competitions, training 248 high-end technical and skilled professionals.



Training Program for Construction, Production, Operation, and Maintenance of New Energy Projects

Professional training

At the main track, we increase efforts to cultivate urgently needed skilled talent and versatile professionals in the new energy sector. We conducted three sessions of the Training Program for Construction, Production, Operation, and Maintenance of New Energy Projects with a total of 102 participants. We have implemented technical supervision and management requirements by organizing six professional technical supervision certification training sessions for 354 participants. Additionally, we introduced customized and package-style training such as delivering training directly to frontline employees, and conducted over 30 business training sessions for them. These initiatives have promoted long-term effectiveness of training.



Practical Skills Enhancement Training Program for Internal Trainers

Training resources

We embrace the philosophy of letting excellent individuals cultivate even more excellent individuals. Through our Zhixiang Cloud Classroom, we have conducted 19 online training sessions for management personnel, internal trainers, and others, with a total of 106 participants. We have established multiple practical training bases and expanded their functions. Additionally, we have published eight professional training manuals and created two question banks, promoting the accumulation and application transformation of our training resources.

The Company collaborates with prestigious universities and external training entities, and regularly provide training for researchers. These initiatives aim to create an integrated IUR talent development ecosystem and achieve comprehensive talent development.

Furthermore, we actively guide and encourage employees, including part-time and contractors, to seek on-the-job degrees and take examinations for various certifications, including vocational skill level certificates, professional title certificates, job qualification certificates, and practice certificates. This approach enhances employees' professional skills and general competencies, improving their overall quality and innovation capabilities, thereby strengthening the Company's core competitiveness. We support employees in pursuing degrees while working and obtaining various professional qualifications. For those who successfully acquire nationally recognized or internationally certified professional qualifications—excluding vocational technical titles—such as legal qualifications, certified public accountants, and intermediate or higher registered safety engineers, the Group offers corresponding rewards. In 2024, 516 employees applied for professional titles, with an 80% pass rate for intermediate titles and a 69.8% pass rate for senior titles.

China Power's Employee Training Performance

Indicator	Unit	2024	2023
Total investment in employee training	RMB'000	101,898.2	94,523.5
Total hours of employee training	hour	1,202,518	965,950
The number of participants in employee training person	participant	219,872	167,070
Average training duration per employee	hour	81	68
Employee training coverage			
Senior management	%	100	100
Middle management	%	100	100
General employees	%	100	100
Administrative staff	%	100	-
Production and technology staff	%	100	-
Male employees	%	100	100
Female employees	%	100	100
Average training hours for employees by type			
Senior management	hour	69	75
Middle management	hour	111	69
General employees	hour	80	71
Administrative staff	hour	61	-
Production and technology staff	hour	89	-
Male employees	hour	71	70
Female employees	hour	126	58

Talent Development

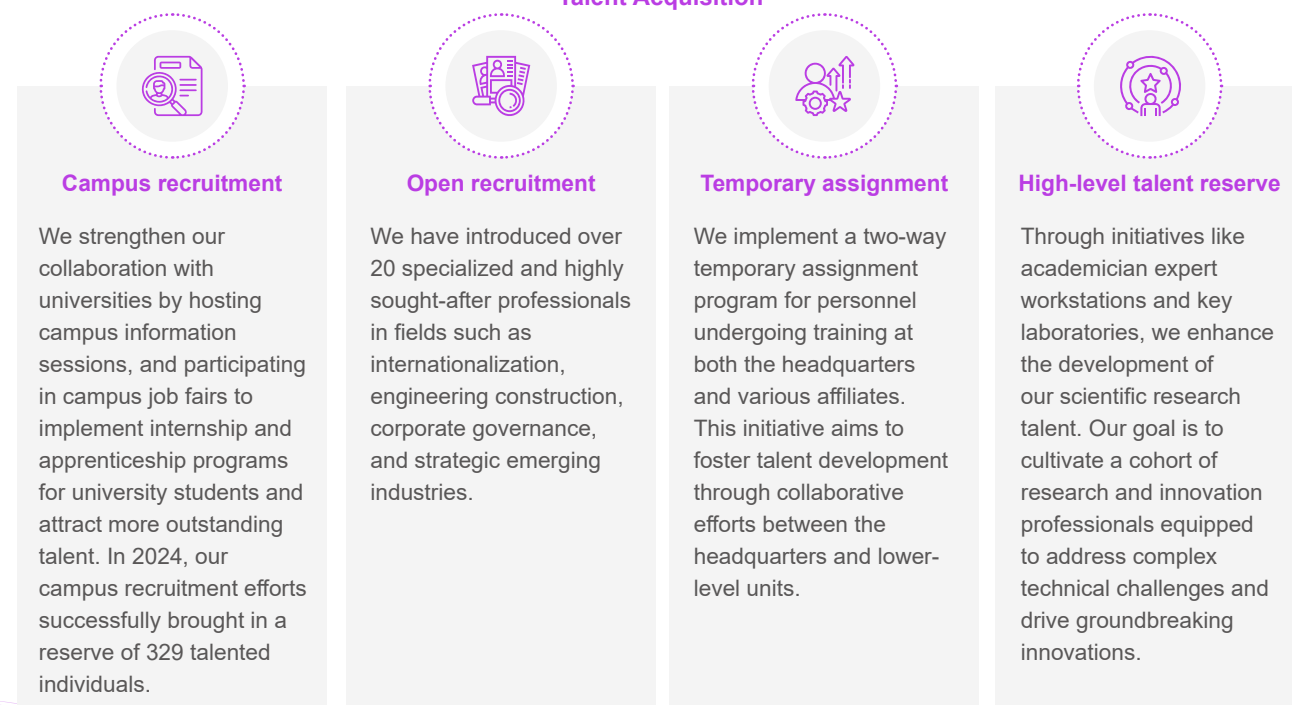
China Power is dedicated to fostering employee development. In alignment with our Employee Career Development Management Measures and the Management Regulations for the Selection and Appointment of Leading Personnel, we are innovating our talent development strategies to promote employee career advancement and cultivate a skilled workforce that aligns with our strategic objectives. We have established three career development channels and two developmental stages, along with four levels for high-ranking positions, ensuring a robust talent team that meets the Company's strategic needs.

We are actively reforming our manager selection and appointment processes by implementing 360-degree evaluations for comprehensive assessments. In parallel, we focus on nurturing young talent by creating a young manager pool and a critical talent pool. This involves targeted development, ongoing monitoring of promising candidates, and systematically assigning outstanding young managers to international projects and major initiatives in new industries and business formats. These efforts unlock the potential of our employees and provide a reliable pipeline of talent to support the Company's high-quality growth. In 2024, 31 young leaders were successfully selected and appointed, and the number of employees from internal recruitment reached 202.

Talent Acquisition

We prioritize talent acquisition as a cornerstone of our strategic development. By continuously refining our recruitment processes and expanding our outreach channels, we ensure a consistent influx of dynamic talent to fuel the long-term growth of our business. Our focus is centered on the core business areas and critical technology research and development initiatives. To this end, we utilize diverse recruitment avenues to attract specialized professionals in fields such as internationalization, corporate governance, ESG, legal affairs, auditing, electrochemical energy storage, and emerging industries. Furthermore, we actively collaborate with innovative research teams from prestigious institutions like Tsinghua University, thereby establishing a robust foundation for the Group's high-quality development and technological advancement. In 2024, the Group acquired 70 talents.

Talent Acquisition



Occupational Health and Safety

Viewing occupational health and safety management as a critical pillar of high-quality development, the Group is dedicated to fostering a culture of intrinsic safety within the organization. We prioritize the health and well-being of our employees, continuously refining our safety management systems while upholding the highest standards of work safety. Our commitment to safety lies in every aspect of the Group's operations, ensuring that it is integrated throughout all fields and processes.

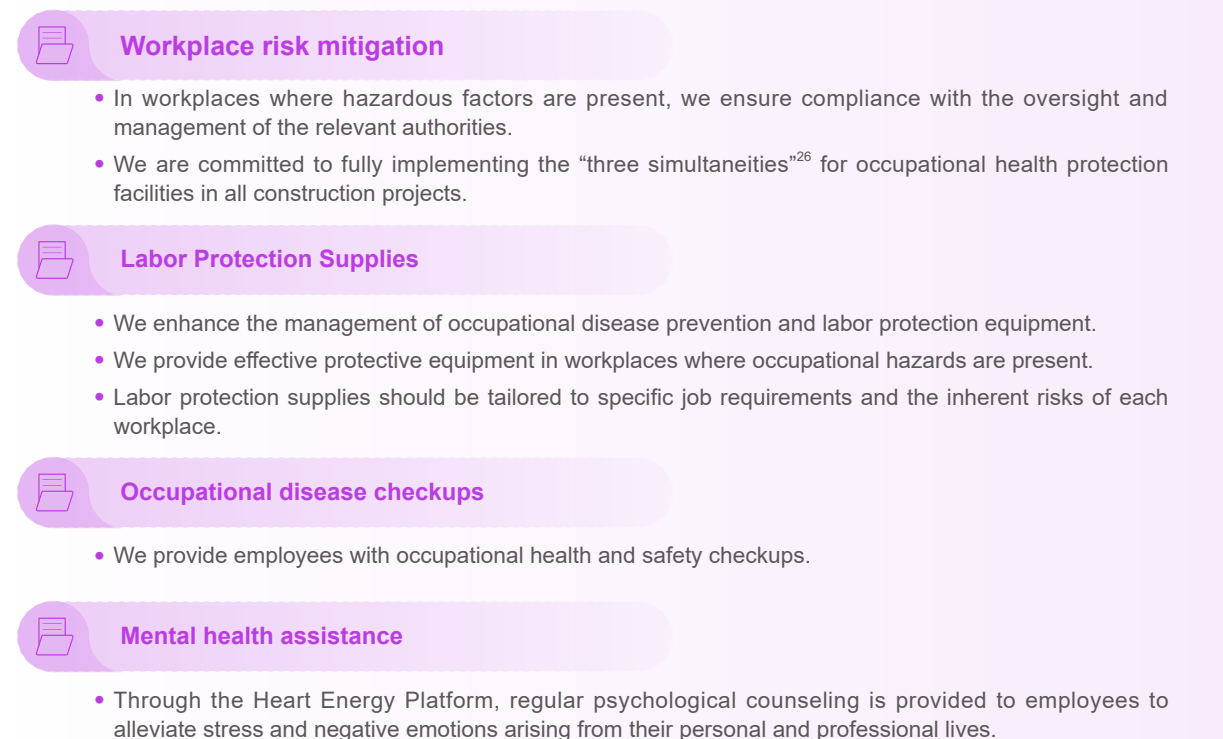
Safety risk management objectives

Ensure the ongoing stability of work safety in 2024 and prevent any work-related accidents or incidents that could potentially impact the reputation of China Power.

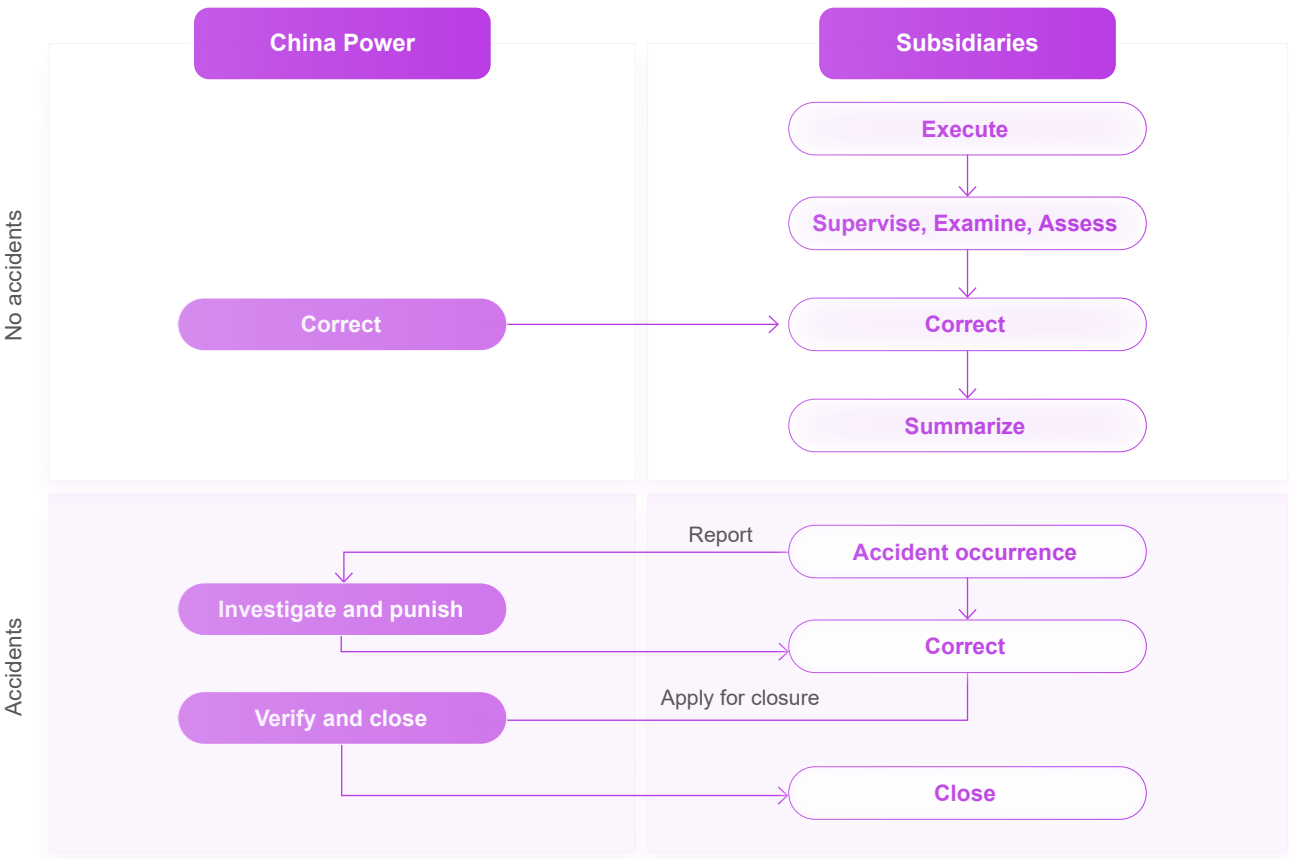
Occupational Health

We are committed to safeguarding the occupational health and safety of our employees by strictly adhering to relevant laws and regulations, including the Law of the People's Republic of China on the Prevention and Control of Occupational Diseases and the Provisions on the Management of Occupational Health in the Workplace. We faithfully implement our Quality, Safety, Health, and Environment Management System Manual along with the Management Measures for Occupational Health and Labor Protection. We reinforce our commitment through a series of targeted protective management measures, we aim to prevent and minimize the risks of occupational diseases associated with our operations. Our goal is to create a safe, hygienic, and comfortable working environment that promotes the health and well-being of every employee. As of the end of the reporting period, we are proud to announce that we have achieved ISO 45001 Occupational Health and Safety Management System Certification.

Management Measures for Prevention and Mitigation of Occupational Diseases



²⁶ This involves the design, construction, and operation of effective health protection facilities are simultaneous with the targeted engineering project.



Occupational Health and Safety Management Process

China Power's Occupational Health and Safety Management Performance

Indicator	Unit	2024	2023
Occupational health examination coverage	%	100	100
Subsidiaries certified to ISO occupational health and safety management system	subsidiary	60	-



Work Safety

We are steadfast in our commitment to the safety philosophy that any risk can be controlled, any violation can be prevented, and any accident can be avoided. Our goal is to create a comprehensive safety framework that effectively manages risks, optimizes emergency response protocols, and embraces innovative safety management strategies. We are dedicated to cultivating a proactive safety culture throughout the organization. By reinforcing safety measures at every level, we establish a strong safety barrier that supports the ongoing transformation and development of our enterprise.

China Power's work safety Performance

Investment into work safety	Work-related deaths
637,830 RMB'000	0

Safety system development

We adhere strictly to the Work Safety Law of the People's Republic of China. We have developed a comprehensive set of work safety management policies. These include the Work Safety Regulations, Work Safety Supervision and Management Measures, and Work Safety Reward and Punishment Regulations. All business units are required to establish a Work Safety Committee, supported by a dedicated office, with the overarching goal of achieving zero serious injuries. We implement the principles of "three managements and three musts" along with the commitment that "whoever is in charge takes responsibility". Focusing on the two main themes of "implementation under strong supervision and construction on strong foundation", we have also established and implemented a robust work safety responsibility system for all employees, ensuring the rigorous fulfillment of our work safety supervision duties.

China Power's Work Safety System

Work Safety and Emergency Management Committee

It exercises the overall leadership over the work safety and emergency management within the respective organization, and makes decisions on major issues concerning work safety and emergency management. Under the Work Safety and Emergency Management Committee is a working office responsible for the daily efforts.

Functional Departments

Depending on the division of functions, each functional department adheres to the principle of "three managements and three musts", establishing the accountability system for work safety, fulfilling work safety duties, and leveraging technical supports and comprehensive services to ensure work safety.

Subsidiaries

Each subsidiary must enforce the responsibilities outlined in the three major work safety accountability systems, create and optimize a comprehensive work safety responsibility framework that encompasses all employees and positions within the organization, as well as the entire production and management processes, develop and enhance the work safety mechanisms.

Construction entities

They enter into legally binding specialized safety management agreements with contractors to clearly delineate the safety management responsibilities of all parties involved. They strengthen unified coordination and oversight of contractors to eliminate issues such as negligence. They empower the general contractors to oversee the safety management of subcontractors and strictly prohibit improper practices. We strengthen contractor safety management oversight, and all employees within the project construction entities share the responsibility for ensuring the adherence to contractor work safety practices. In the event of any safety violations, they are required to promptly report the incident to field project management and supervisory personnel.

In 2024, we have heightened our commitment to work safety through creating several key documents: the 2024 Key Points for Safety, Quality, and Environmental Supervision; the Intrinsic Safety Enterprise Development Plan; and the Three-Year Action Plan for Fundamental Work Safety Improvement (2024-2026). These initiatives serve to further clarify safety responsibilities at all levels, ensuring a comprehensive and meticulous implementation of work safety protocols.

China Power's Work Safety Objectives

- No serious personal injuries or more severe work safety incident shall occur;
- No general or above-level equipment accidents shall take place;
- No dam failures or flood overtopping incidents at reservoirs or ash storage facilities shall occur;
- No general Class B or above-level railway traffic accidents shall happen;
- No general or above-level road traffic accidents for which primary responsibility is assigned to the Company shall occur;
- No general or above-level fire accidents shall take place;
- No general or above-level electricity accidents shall happen;
- No general or above-level liability-related network security incidents shall occur.

China Power's Safety Management Performance

Indicator	Unit	2024	2023	2022
Work-related deaths	/	0	0	0
Percentage of work-related deaths	%	0	0	0

Indicator	Unit	2024	2023
Lost workdays due to work injury ²⁷	Day	0	26
Near miss frequency rate (NMFR)	%	0	0
Equipment safety accident rate	%	0	0
Power safety accident rate	%	0	0

In line with the ISO 45001 standard, we consistently monitor and analyze KPIs for safety management. This process, coupled with quarterly inspections and internal audits, ensures compliance with legal regulations and industry standards. By tracking these KPIs, we support informed decision-making in safety management, enabling the Company to reduce safety risks and improve overall safety performance.

²⁷ Working days are calculated according to national standards, establishing an annual total of 248 working days. The total number of working hours is determined by multiplying the number of working days by 8 hours per day.

Procedure-based work safety

We are committed to advancing the standardization of work safety practices. In alignment with national and industry regulations on work safety, we continuously optimize safety management processes, elevating overall safety standards through standardized management requirements. This year, we developed regulatory documents, including the Standardized Atlas for Safe and Proper Construction of Thermal Power Projects, which enhances on-site management of infrastructure projects and strengthens our standardized management capabilities.

Additionally, we strictly comply with a comprehensive set of safety standards, such as the Measures for the Construction of Wind Power Generation Projects, Measures for the Construction of Photovoltaic Power Generation Projects, Measures for the Construction, Production and Operation of Energy Storage (Electrochemical) Power Stations (Trial). These initiatives aim to pave a pathway for work safety standardization in the energy storage sector and create a management model for environmental power stations that reflects the distinctive characteristics of China Power.

Safety culture

China Power is dedicated to implementing rigorous work safety training and promoting safety knowledge throughout the organization. This initiative enhances safety and environmental control across all processes and stages, significantly bolstering employees' safety awareness, emergency response skills, and adherence to standardized work practices. As a result, we achieve a comprehensive improvement in overall safety competencies among our workforce.

In 2024, we conducted thorough special inspection campaigns focused on work safety. Through a range of activities, including safety knowledge lectures, emergency drills, safety culture promotion month, and daily awareness initiatives, we underscored the importance of work safety. Adhering to the principle of safety first, we have prioritized employees' health and well-being, enhancing their safety awareness and emergency response capabilities, and fostering a safe and stable working environment.



Wu Ling Power Secured Second Place in the Qing'an Cup Work Safety Knowledge Competition Team Category



Guangxi Company Hosted Safety Lectures



Shanxi Company Organized Safety Management Training Program



Wu Ling Power Launched Work Safety Month Initiative

Furthermore, the China Power Technical Training Center has established a specialized safety skills training base. In response to the operational needs of the Group and to meet the safety training requirements of various production sites, we have developed a range of training programs that leverage cutting-edge digital technologies, including Virtual Reality (VR) and Augmented Reality (AR). These programs deliver comprehensive safety theory and practical skills training to front-line production employees, production management personnel, and safety supervision staff, significantly improving their safety awareness and management competencies.

China Power's Work Safety Training Performance

Indicator	Unit	2024	2023
Total training expenses	RMB	11,800,000	3,953,800
Employee safety training			
Number of times for safety training	time	7,105	6,809
Hours of safety training	hour	152,253	36,525
Number of participants in safety training	person-time	164,922	118,224
Contractor safety training			
Hours of safety training	hour	143,544	-
Number of times for safety training	time	8,651	-
Number of contractors covered by safety training	contractor	1,118	-

Safety risk prevention and control

We have developed the Management Measures for Safety Risk Classification, Control, and Hidden Hazard Investigation and Governance to enhance the identification, assessment, and proactive control of safety risks. These measures apply to all of our workplaces and production processes, providing a comprehensive framework for standardizing safety management and preventing production-related accidents.

The Company has also launched the *Chuan Shi Action Plan for Work Safety* which introduces 17 initiatives aimed at enhancing safety, quality, and environmental supervision. These initiatives leverage four risk management tools. Additionally, as part of a pilot project at Pu'an Power, we have created an intelligent control platform for power plant safety operations. For this platform, an initial safety risk warning and analysis model has been created. This is designed to strengthen operational risk control, and continuously improves the effectiveness of safety oversight.

We have established a comprehensive mechanism for spotting hidden hazards and implemented targeted safety initiatives that encompass safety, quality, and environmental inspections for construction projects, gas fire prevention assessments, contractor safety management reviews, and overall improvements in mine safety. Additionally, we have conducted thorough investigations and rectifications of major accident hazards. This year, we have significantly ramped up our efforts in the special inspection and rectification of major accident hazards related to power safety. We enhanced the construction of a dual prevention mechanism, performed weekly statistical analyses of risky operations, and established monthly safety controls for major operational risks. Random checks of risk control measures were executed, resulting in a total of 91 safety inspections.

Moreover, we actively welcomed unannounced spot checks by regulatory authorities concerning the safety management of production units and engaged professional third-party organizations to audit work safety conditions. These actions have further strengthened external oversight of our safety management practices.



Beijing Company organized a special program for spotting safety hazards

Beijing Company conducted several focused inspections to identify hidden safety hazards, including seasonal inspections in spring and autumn, contractor assessments, and mechanical equipment evaluations. In total, 994 issues were identified in areas such as work safety regulations, personnel training and education, and equipment defects. Remarkably, 986 of these issues have been resolved, resulting in a rectification completion rate of 99.19%. These initiatives have significantly mitigated the risk of various safety hazards.



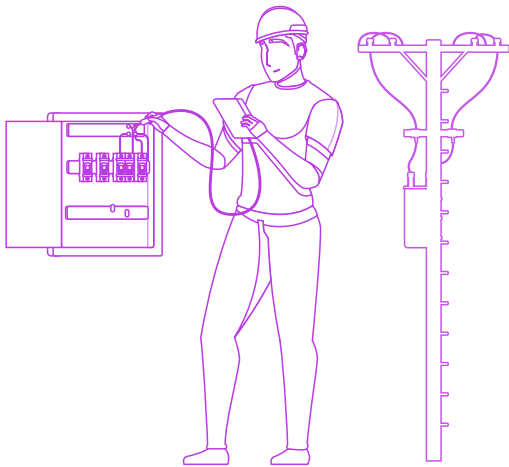
Beijing Company's Special Program for Spotting Safety Hazards





Qiyuanxin Power launched virtual and physical safety checks

Qiyuanxin Power (an associate of the Company) has completed 433 on-site safety inspections and conducted weekly comprehensive online safety checks. As a result, 2,837 safety issues and potential hazards have been addressed. Through various hazard identification methods, the company has significantly improved its safety management.



Qiyuanxin Power's Virtual and Physical Safety Checks

China Power's Performance on Safety Hazard Identification

Indicator	Unit	2024	2023
Number of campaigns to spot safety hazards	time	3,341	3,468
Correction rate of safety hazards	%	97.85	99.82

Safety emergency management

China Power has established the Emergency Management Regulations to standardize and strengthen its practices. These regulations serve as guidance for all units to enhance their emergency systems, refine their mechanisms, and bolster their emergency response capabilities. The Company has formed specialized emergency leadership teams tailored to specific scenarios, creating a comprehensive emergency management framework that integrates both vertical and horizontal coordination, with local management as the primary approach. This structure ensures prompt responses to incidents as they arise. To further improve employees' emergency response skills, the Company conducts regular emergency drills including natural disasters and hazardous chemicals leakage and revises its emergency plans accordingly.

In 2024, China Power executed a total of

6,202 emergency drills,

with overall participation reaching

58,798



Fujian Company Conducted Special Emergency Drill for Typhoon and Flood Prevention



Shanxi Company Conducted Cross-Region Forest Fire Emergency Drill

China Power's Safety Emergency Management Performance

Number of safety emergency drills (time)



Total duration of safety emergency drills (hour)



Number of participants in safety emergency drills (person-time)



05

Shared Development

Social Contribution and Impact

China Power is dedicated to integrating social responsibility into its development strategy and business operations. We align regional development with community progress, actively support the country's rural revitalization strategy, and engage deeply with local communities to promote shared growth and development. We continue to strengthen our public welfare initiatives, actively participating in charitable activities and collaborating to build better communities. Through a range of measures, we contribute to the harmonious advancement of local economies and societies.

Indicator	Unit	2024	2023
Educational donations	RMB	600,000+	300,000
Cumulative number of students assisted	person-time	954	1,058
Total charity donation	RMB	4,356,400	3,142,800
Total number of times participating in social welfare activities	time	195	121
Total public welfare hours	hour	6,465	3,285

Responding to the Sustainable Development Goals (SDGs) of the United Nations



Promote Regional Development

China Power has consistently viewed the promotion of regional coordinated development as a vital mission and responsibility. We actively implement the rural revitalization strategy, fostering economic revival and sustainable development in rural areas. By engaging with the communities hosting our international projects, we take a multifaceted approach to contribute to community development. Through our commitment to balancing internal initiatives with external efforts, we demonstrate our corporate responsibility and provide enduring momentum for the harmonious development of regional economies and societies.

Rural Revitalization

China Power is fully committed to advancing the rural revitalization strategy, focusing on infrastructure improvement, industrial support, and the modernization of agriculture. By tailoring initiatives to local conditions, we promote rural economic revitalization and livelihood improvement, actively supporting sustainable rural development through a range of diversified efforts. In 2024, the Group invested a total of 473,830 RMB'000 in rural revitalization initiatives.

the Group invested a total of
473,830 RMB'000 in rural
revitalization initiatives



Shandong Energy's rural revitalization research in Xiaoyulin Village, Wulianshan

In April 2024, Shandong Energy conducted an in-depth study on rural revitalization initiatives in Xiaoyulin Village, located in Wulianshan. The company offered strategic guidance and financial assistance amounting to RMB 300,000 for the village's revitalization program, empowering Xiaoyulin Village to establish a distinctive approach to its development.



Rural Revitalization Donation Ceremony



Wu Ling Power's Targeted Assistance in Jiangxikou Village

In 2024, Wu Ling Power proactively implemented targeted assistance in Jiangxikou Village, investing a total of 1,300,000 RMB'000 throughout the year. The company focused on enhancing infrastructure and providing industrial support by completing the renovation of the hazardous bridge on Houjiaping Road, repairing village roads, and constructing a comprehensive monitoring facility for the cured meat processing plant. These initiatives generated over 20 job opportunities for local residents and increased the village's collective income by RMB 200,000 annually.



Rural Revitalization Research in Jiangxikou Village



Targeted assistance in Meigu County

In 2024, China Power allocated RMB 900,000 in non-reimbursable assistance funds to Meigu County, significantly boosted the sales of local agricultural products, reaching a total of RMB 8,690,000, and successfully fulfilled assistance sales tasks valued at RMB 2,070,000. These efforts have had a tangible impact on driving local economic development.



Yi Ethnic New Village in Meigu County



Qiyuanxin Power's first batch of electric agricultural machinery went to the field

In November 2024, Qiyuanxin Power (an associate of the Company) launched its first batch of three 140-horsepower electric tractors on a farm in Zhenjiang, Jiangsu Province. This marked the establishment of an electric agricultural machinery demonstration field aimed at minimizing diesel usage in traditional fuel-powered agricultural machines. By doing so, the initiative seeks to reduce farmland pollution and promote the transformation and modernization of agricultural mechanization. Additionally, this effort aligns with the goal of fostering green development in agriculture.




Qiyuanxin Power's Agricultural Machinery in Action

Community Development


China Power is deeply committed to supporting the communities surrounding its overseas projects, considering the enhancement of livelihoods and community welfare to be a fundamental responsibility. We prioritize the needs of local populations and champion sustainable development by actively creating job opportunities, promoting educational advancement, and driving infrastructure improvements. These initiatives have significantly improved the quality of life for local residents and made substantial contributions to the region’s sustainable development and overall community well-being.

In 2024, CPHGC (an entrusted company of China Power) was honored with four Annual Social Responsibility Awards at the 16th Corporate Social Responsibility Summit hosted by the Pakistan National Environment and Health Forum. This recognition highlights CPHGC’s commitment to social welfare and compassionate educational support.



Wu Ling Power's Cox's Bazar Project in Bangladesh

In 2024, Wu Ling Power made significant strides in the Cox's Bazar Wind Power Project, reinforcing its commitment to the local community in Bangladesh. The project not only created job opportunities for residents but also focused on recruiting Bangladeshi employees and providing them with professional training. This initiative led to the cultivation of the first batch of skilled professionals in the wind power sector, contributing actively to the sustainable development of Bangladesh.




Some Bangladeshi Employees of the Cox's Bazar Wind Farm from the Bangladesh Business Department of Wu Ling Power

Enhance Social Welfare

China Power is committed to enhancing its public welfare brand, Yingshanhong China Power Bright Journey, by focusing on key areas such as educational support, community service, and science promotion. We actively engage in a variety of multi-level welfare activities, taking concrete actions to fulfill our social responsibilities. In 2024, as part of the Yingshanhong initiative, the Company donated over RMB 600,000 for educational support, benefiting 954 individuals.

China Power's Social Welfare Performance

Indicator	Unit	2024	2023
Total charity donation	RMB	4,356,400	3,142,800
Total number of times participating in social welfare activities	time	195	121
Total number of participants in social welfare activities	person-time	4,613	6,809
Total public welfare hours	hour	6,465	3,285



Shandong Energy performed “Yingshanhong” volunteering services

In April 2024, Shandong Energy conducted the Yingshanhong volunteering service activity in Wulian, Rizhao. As part of this initiative, the organization donated 25 computers and over 2,000 books, and awarded grants and learning supplies to ten students recognized for their academic excellence and good conduct. Through these tangible efforts, Shandong Energy helps enhance rural education and foster the development of future talent.



Shandong Energy Carries out the Yingshanhong Volunteering Activity



Pingwei Power performed “Yingshanhong” volunteering services

In 2024, volunteers from Pingwei Power visited the Juyuan Community to connect with elderly residents living alone, bringing thoughtful gifts such as milk and pastries. Volunteers dedicated their time to assist the seniors in preparing vegetables while engaging in friendly conversations about daily life, fostering an atmosphere of warmth and companionship. Through these meaningful interactions, the young volunteers showcased their compassion and sense of responsibility, highlighting their commitment to caring for the community and embracing their social duties.



Pingwei Power Performs “Yingshanhong” Volunteering Services



Qianzhan Wind Power launched a science promotion class on Offshore Wind Power + Artificial Intelligence

In March 2024, Qianzhan Wind Power collaborated with the AITA Student Innovation Team from Guangdong University of Technology at Jieyang Campus to visit Rongcheng Experimental School. They hosted a science promotion class on Offshore Wind Power + Artificial Intelligence, during which they donated science books to the school. The event featured engaging activities, including mini-lessons on wind power, interactive Q&A sessions, and wind turbine model building, effectively merging education with entertainment. This initiative not only ignited students' interest in learning and applying scientific knowledge but also broadened their technological horizons, highlighting the vibrancy of public welfare services.



Offshore Wind Power + Artificial Intelligence Class

China Power has consistently demonstrated a strong sense of social responsibility by actively engaging in a wide range of social welfare initiatives. The Company is involved in various public welfare projects, including natural disaster relief, humanitarian aid, cultural exchanges, and volunteer activities. With a commitment to giving back to society, China Power promptly provides support and assistance to local communities, embodying a spirit of compassion and service.



Volunteer security for the Paris Olympic 3x3 basketball qualifiers

In April 2024, China Power proudly supported the first match of the Paris Olympics 3x3 Basketball Qualifiers held at Victoria Park in Hong Kong. The Company organized employees to engage in volunteer security efforts, offering assistance to both competitors and spectators to ensure the event ran smoothly. Through these initiatives, China Power showcased its dedication to facilitating international sports competitions.



China Power Hong Kong Volunteer Team Joins Volunteer Security Efforts for the Paris Olympics 3x3 Basketball Qualifiers



Technical Glossary and Definitions

Technical Glossary and Definitions	
Belt and Road Initiative (BRI)	The Silk Road Economic Belt and the 21st-Century Maritime Silk Road, being the multinational economic belts advocated and led by the government of the People's Republic of China in 2013. The initiative invested in nearly 70 countries and international organizations, covering major development plans in Chinese mainland, Central Asia, North and West Asia, coastal regions of the Indian Ocean, coastal regions of the Mediterranean Sea, South America, Africa and Atlantic regions along the China historic Silk Road and the Maritime Silk Road.
Board	The board of directors of the Company
Consolidated installed capacity	100% installed capacity of a company that is deemed as a subsidiary in the Group's consolidated financial statements.
Director(s)	Director(s) of the Company
Entrusted assets	The relevant assets covered under the Entrusted Management Framework Agreement signed by China Power for the provision of planning, operation and management services to the counterparties of the contracts, please refer to the announcement of the Company dated 3 April 2023 for details.
Green certificate	An “electronic ID card” for green power issued by a renewable energy power generation enterprise. It is identified with a unique serial number and used to prove and account for the power generation and use of renewable energy. The generation of each green certificate means that 1,000 watt (1 MWh) of electricity generated from renewable energy has been connected to the power grid.
Green power	The electricity generated from renewable energy power generation projects, but the types of technologies covered vary by country/region. The current concept of green power in the PRC refers specifically to electricity generated by photovoltaic power (excluding distributed photovoltaic) and wind power generation projects.
Green power transactions	Green power transactions refer to medium and long-term electricity transactions with green electricity products as the subject matter, to meet the needs of electricity users to purchase and consume green electricity, and to provide corresponding green electricity consumption certification. It is a brand-new trading product established within the framework of the medium- and long-term electric power market.
Hong Kong	Hong Kong Special Administrative Region of the PRC
Hong Kong Companies Ordinance	Companies Ordinance, Chapter 622 of the Laws of Hong Kong (as amended from time to time)
Hong Kong Stock Exchange	The Stock Exchange of Hong Kong Limited


Technical Glossary and Definitions	
IFRS S1	Sustainability Disclosure Standards of IFRS S1 — General Requirements for Disclosure of Sustainability-related Financial Information
IFRS S2	Sustainability Disclosure Standards of IFRS S2 — Climate-related Disclosures
Installed capacity	The rated generating capacity of a generator unit or a power plant of a manufacturer, usually in MW.
ISSB	International Sustainability Standards Board
kW	1,000 watts
kWh	Kilowatt-hour, a standard unit of energy used in the electricity industry. One kilowatt-hour is equal to the energy produced by a generator generating one kilowatt of power over the course of one hour.
Listing Rules	The Rules Governing the Listing of Securities on the Hong Kong Stock Exchange
MW	One million watts
MWh	One MWh equals to one thousand kWh
Net coal consumption rate	Average consumption of standard coal for supplying 1kWh power (deducting self-used power)
PRC, China	The People's Republic of China
RMB	The lawful currency of the PRC
SASAC	State-owned Assets Supervision and Administration Commission of the State Council
Standard coal	Coal with an energy content of 7,000 kilocalories per kilogram
TCFD	Task Force on Climate-Related Financial Disclosure

Abbreviations

Abbreviations	
Anhui Company	國家電投集團安徽電力有限公司 (SPIC Anhui Electric Power Co., Ltd.)
Bazhou Environmental Protection	霸州中電環保發電有限公司 (Bazhou China Power Environmental Protection Company Limited)
Beijing Company	國家電投集團北京電力有限公司 (SPIC Beijing Electric Power Co., Ltd.)
Changshu Electric Power	江蘇常熟發電有限公司 (Jiangsu Changshu Electric Power Generating Company Limited)
Changshu Power Distribution	中電常熟配售電有限公司 (China Power Changshu Power Distribution Company Limited)
Changshu Thermal Power	中電常熟熱電有限公司 (China Power Changshu Thermoelectric Co., Ltd.)
Chengdu Comprehensive Energy	中電（成都）綜合能源有限公司 (China Power (Chengdu) Comprehensive Energy Company Limited)
Chile S.A.	太平洋水電智利公司 (Pacific Hydro Chile S.A.)
China Power Dabieshan	中電大別山（湖北）電力發展有限公司 (China Power Dabieshan (Hubei) Power Development Co., Ltd.)
China Power, the Company, We	中國電力國際發展有限公司 (China Power International Development Limited)
CPHGC	中電國際胡布發電有限責任公司 (China Power Hub Generation Company (PVT.) Limited)
CP Hua Chuang	中電華創電力技術研究有限公司 (China Power Hua Chuang Electric Power Technology Research Company Limited)
CP Huayuan	中電華元核電工程技術有限公司 (China Power Huayuan Nuclear Power Engineering Technology Co., Ltd.)
Fuxi Power Plant	四川中電福溪電力開發有限公司 (Sichuan CPI Fuxi Power Company Limited)
Fujian Company	國家電投集團福建電力有限公司 (SPIC Fujian Electric Power Co., Ltd.)
Guangxi Company	國家電投集團廣西電力有限公司 (SPIC Guangxi Electric Power Co., Ltd.)
Heilongjiang Company	國家電投集團黑龍江電力有限公司 (SPIC Heilongjiang Power Co., Ltd.)
Hubei Company	國家電投集團湖北電力有限公司 (SPIC Hubei Electric Power Co., Ltd.)
Jiangmen Comprehensive Energy	中電（江門）綜合能源有限公司 (China Power (Jiangmen) Comprehensive Energy Company Limited)
Kazakhstan Energy Investment	哈薩克斯坦能源投資公司 (Kazakhstan Energy Investment Company Limited)
Offshore Wind Power Company	海衛（乳山）海上風電有限公司 (Haiwei (Rushan) Offshore Wind Power Company Limited)

Abbreviations	
Pingwei Power	安徽淮南平圩發電有限責任公司 (Anhui Huainan Pingwei Electric Power Company Limited)
Pu'an Power	中電（普安）發電有限責任公司 (China Power (Pu'an) Power Generating Company Limited)
Qianzhan Wind Power	揭陽前詹風電有限公司 (Jieyang Qianzhan Wind Power Co., Ltd.)
Qiyuanxin Power	上海啟源芯動力科技有限公司 (Shanghai Qiyuanxin Power Technology Co., Ltd.)
São Simão Hydropower	聖西芒水電能源股份有限公司 (São Simão Hydropower Corporation)
Shandong Energy	國家電投集團山東能源發展有限公司 (SPIC Shandong Energy Development Co., Ltd.)
Shangqiu Thermal Power	中電（商丘）熱電有限公司 (China Power (Shangqiu) Thermal Power Co., Ltd.)
Shanxi Company	國家電投集團山西電力有限公司 (SPIC Shanxi Power Co., Ltd.)
Shentou Power	中電神頭發電有限責任公司 (China Power Shentou Power Generating Company Limited)
Shentou Power Plant II	山西中電神頭第二發電有限責任公司 (Shanxi China Power Shentou No. 2 Power Generating Company Limited)
SPIC	國家電力投資集團有限公司 (State Power Investment Corporation)
Wuhu Power	蕪湖發電有限責任公司 (Wuhu Electric Power Generating Company Limited)
Wu Ling Power	五凌電力有限公司 (Wuling Power Corporation)
Xinyuan Smart Storage	新源智儲能源發展（北京）有限公司 (Xinyuan Smart Storage Energy Development (Beijing) Co., Ltd.)
Xinyuan Taili	新源泰利能源科技（北京）有限公司 (Xinyuan Taili Energy Technology (Beijing) Co., Ltd.)
Xinyuan Zhonghui	北京新源中慧科技有限公司 (Beijing Xinyuan Zhonghui Technology Co., Ltd.)
Yaomeng Energy	河南姚孟能源投資有限公司 (Henan Yaomeng Energy Investment Co., Ltd.)
Zuma Energia	墨西哥祖瑪能源公司 (Zuma Energia S.A. de C. V)

Appendix I: Assurance Report



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Independent Limited Assurance Report

Ernst & Young Hua Ming (2025) No.70055157_A01
China Power International Development Limited

Board of Directors of China Power International Development Limited:

Scope
We have been engaged to perform a limited assurance engagement, as defined by International Standards on Assurance Engagements, on the specified assurance information ("Key Information") from Page 169 to Page 173 of China Power International Development Limited ("China Power") 2024 Sustainability Report ("ESG Report").

Other than as described in the preceding paragraph, which sets out the scope of our engagement, we did not perform assurance procedures on the remaining information included in the ESG Report, and accordingly, we do not express a conclusion on this information.

Criteria applied by China Power
In preparing the Key Information of ESG Report, China Power applied the Environmental, Social and Governance Reporting Code issued by the Stock Exchange of Hong Kong Limited (HKEX) and the criteria as defined and disclosed in the ESG Report ("Criteria").

Management's responsibilities
China Power's management is responsible for selecting the Criteria, and for presenting the Key Information of ESG Report in accordance with the criteria above, in all material respects. This responsibility includes establishing and maintaining internal controls, maintaining adequate records and making estimates that are relevant to the preparation of the subject matter, so that such key information is free from material misstatement due to fraud or error.


EY's responsibilities
Our responsibility is to express a conclusion on the presentation of the Key Information of the ESG Report based on the evidence we have obtained. We conducted our engagement in accordance with the *International Standard for Assurance Engagements Other Than Audits or Reviews of Historical Financial Information* ("ISAE 3000 (Revised)"), and the terms of reference for this engagement as agreed with China Power on 27 December 2024. The standard requires that we plan and perform our engagement to express a conclusion on whether we are aware of any material modifications that need to be made to the Key Information in order for it to be in accordance with the Criteria, and to issue a report. The nature, timing, and extent of the procedures selected depend on our judgment, including an assessment of the risk of material misstatement, whether due to fraud or error. We believe that the evidence obtained is sufficient and appropriate to provide a basis for our limited assurance conclusion.

Our independence and quality management
We have maintained our independence and confirm that we have met the requirements of the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants and have the required competencies and experience to conduct this assurance engagement.

EY also applies International Standard on Quality Management 1, *Quality Management for Firms that Perform Audits or Reviews of Financial Statements, or Other Assurance or Related Services engagements*, which requires that we design, implement and operate a system of quality management including policies or procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Description of procedures performed
Procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed. Our procedures were designed to obtain a limited level of assurance on which to base our conclusion and do not provide all the evidence that would be required to provide a reasonable level of assurance. Although we considered the effectiveness of management's internal controls when determining the nature and extent of our procedures, our assurance engagement was not designed to provide assurance on internal controls. Our procedures did not include testing controls or performing procedures relating to checking aggregation or calculation of data within IT systems.

A limited assurance engagement consists of making enquiries, primarily of persons responsible for preparing the Key Information and related information, and applying analytical and other appropriate procedures.



Independent Limited Assurance Report (Continued)


Ernst & Young Hua Ming (2025) No.70055157_A01
China Power International Development Limited

Description of procedures performed (Continued)

Our procedures included:

- 1) Conducted interviews with personnel to understand the business and reporting process
- 2) Conducted interviews with key personnel to understand the process for collecting, collating and reporting the Key Information during the reporting period
- 3) Checked that the calculation criteria have been correctly applied in accordance with the methodologies outlined in the Criteria
- 4) Undertook analytical procedures of the data and made inquiries of management to obtain explanations for any significant differences we identified
- 5) Tested, on a sample basis, underlying source information to check the accuracy of the data; and
- 6) Other procedures deemed necessary

Conclusion
Based on our procedures and the evidence obtained, we are not aware of any material modifications that need to be made to the Key Information of ESG Report, in order for it to be in accordance with (or based on) the Criteria.

Appendix II: Index of Indicators

SEHK ESG Code Index

Aspects	Content	Page No. in the Report	Specified Assurance Information
Part B: Mandatory Disclosure Requirements			
Board Statement		20	-
Materiality		2	-
Quantitative		2	-
Consistency		2	-
Scope of Reporting		1	-
Part C: “Comply or explain” Provisions			
Environmental			
Aspect A1: Emissions			
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to air emissions, discharges into water and land, and generation of hazardous and non-hazardous waste.	101-104	Yes
A1.1	The types of emissions and respective emissions data.	101-104	Yes
A1.2	[Repealed 1 January 2025]	/	/
A1.3	Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	104	Yes
A1.4	Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	104	Yes
A1.5	Description of emission target(s) set and steps taken to achieve them.	101-103	-
A1.6	Description of how hazardous and non-hazardous wastes are handled, and a description of reduction target(s) set and steps taken to achieve them	103-104	-
Aspect A2: Use of Resources			
General Disclosure	Policies on the efficient use of resources, including energy, water and other raw materials.	96-100	Yes
A2.1	Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in '000s) and intensity (e.g. per unit of production volume, per facility).	97	Yes
A2.2	Water consumption in total and intensity (e.g. per unit of production volume, per facility).	98	Yes
A2.3	Description of energy use efficiency target(s) set and steps taken to achieve them.	96	-

Aspects	Content	Page No. in the Report	Specified Assurance Information
A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency target(s) set and steps taken to achieve them.	97-99	-
A2.5	Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced.	NA	-
Aspect A3: The Environment and Natural Resources			
General Disclosure	Policies on minimising the issuer's significant impacts on the environment and natural resources.	90-93, 107-110	-
A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	94-95, 107-110	-
Aspect A4: Climate Change			
[Repealed 1 January 2025]			
A4.1	[Repealed 1 January 2025]		
Social			
Aspect B1: Employment			
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare.	135-141	Yes
B1.1	Total workforce by gender, employment type (for example, full- or part-time), age group and geographical region.	133	Yes
B1.2	Employee turnover rate by gender, age group and geographical region.	133-134	Yes
Aspect B2: Health and Safety			
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environment and protecting employees from occupational hazards.	146-154	Yes
B2.1	Number and rate of work-related fatalities occurred in each of the past three years including the reporting year.	149	Yes
B2.2	Lost work-days due to work injury.	149	Yes
B2.3	Description of occupational health and safety measures adopted, and how they are implemented and monitored.	146-154	Yes
Aspect B3: Development and Training			
General Disclosure	Policies on improving employee knowledge and skills for discharging duties at work. Description of training activities. Note: Training refers to vocational training. It may include internal and external courses paid by the employer.	142-145	Yes
B3.1	The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	144	Yes
B3.2	The average training hours completed per employee by gender and employee category.	144	Yes
Aspect B4: Labor Standards			

Aspects	Content	Page No. in the Report	Specified Assurance Information
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labour.	135	-
B4.1	Description of measures to review employment practices to avoid child and forced labour.	135	-
B4.2	Description of steps taken to eliminate such practices when discovered.	135	-
Aspect B5: Supply Chain Management			
General Disclosure	Policies on managing environmental and social risks of the supply chain.	126-130	Yes
B5.1	Number of suppliers by geographical regions.	126	Yes
B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, and how they are implemented and monitored.	126-130	Yes
B5.3	Description of practices used to identify environmental and social risks along the supply chain, and how they are implemented and monitored.	127-128, 130	Yes
B5.4	Description of practices used to promote environmentally preferable products and services when selecting suppliers, and how they are implemented and monitored.	127-128, 130	Yes
Aspect B6: Product Responsibility			
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress.	119-125	-
B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	NA	-
B6.2	Number of products and service related complaints received and how they are dealt with.	125	Yes
B6.3	Description of practices relating to observing and protecting intellectual property rights.	118	Yes
B6.4	Description of quality assurance process and recall procedures. Description of quality assurance process and recall procedures.	NA	-
B6.5	Description of consumer data protection and privacy policies, and how they are implemented and monitored.	NA	-
Aspect B7: Anti-corruption			
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering.	56-59	Yes
B7.1	Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases.	57	Yes
B7.2	Description of preventive measures and whistle-blowing procedures, and how they are implemented and monitored.	56-60	Yes
B7.3	Description of anti-corruption training provided to directors and staff.	60	Yes

Aspects	Content	Page No. in the Report	Specified Assurance Information
Aspect B8: Community Investment			
General Disclosure	Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests.	157-162	-
B8.1	Focus areas of contribution (e.g. education, environmental concerns, labour needs, health, culture, sport).	157-162	-
B8.2	Resources contributed (e.g. money or time) to the focus area.	157, 160	Yes
Part D: Climate-related Disclosures			
(I) Governance	Disclose information about: (a) the governance body(s) or individual(s) responsible for oversight of climate-related risks and opportunities; and (b) management's role in the governance processes, controls and procedures used to monitor, manage and oversee climate-related risks and opportunities.	77-78	-
(II) Strategy	Climate-related risks and opportunities - disclose information to enable an understanding of climate-related risks and opportunities that could reasonably be expected to affect the issuer's cash flows, its access to finance or cost of capital over the short, medium or long term.	78-83	-
	Business model and value chain - disclose information that enables an understanding of the current and anticipated effects of climate-related risks and opportunities on the issuer's business model and value chain.	79-80	-
	Strategy and decision-making - disclose information that enables an understanding of the effects of climate-related risks and opportunities on its strategy and decision-making, including how the issuer has responded to, and plans to respond to, climate related risks and opportunities in its strategy and decision making, and how the issuer plans to achieve any climate-related targets it has set and any targets it is required to meet by law or regulation; and the progress of plans disclosed and how the issuer is resourcing, and plans to resource.	87-89	-
	Financial position, financial performance and cash flows – Current financial effect - disclose qualitative and quantitative information about how climate-related risks and opportunities have affected its financial position, financial performance and cash flows for the reporting period; and information for which there is a significant risk of a material adjustment to the carrying amounts of assets and liabilities. Anticipated financial effect - provide qualitative and quantitative disclosures about how the issuer expects its financial position, financial performance and cash flows to change over the short, medium and long term, given its strategy to manage climate-related risks and opportunities.	3, 80-83	-
	Climate resilience - disclose information that enables an understanding of the resilience of the issuer's strategy and business model to climate-related changes, developments and uncertainties, and use climate-related scenario analysis to assess.	81-84	-
(III) Risk Management	Disclose information about the processes and related policies the issuer uses to identify, assess, prioritise and monitor climate-related risks and opportunities.	78, 85	-
(IV) Metrics and Targets	Greenhouse gas emissions - Scope 1; Scope 2 (location-based); and Scope 3. SEHK provides the Reasonable Information Relief and on certain conditions, an issuer is permitted to measure its greenhouse gas emissions using information for reporting periods that are different from its own reporting period.	86	Yes (assurance completed for Scope 1 and Scope 2 greenhouse gas emissions)
	Climate-related transition risks, physical risks and opportunities - disclose the amount and percentage of assets or business activities vulnerable to climate-related risks and opportunities.	79-83	-

Aspects	Content	Page No. in the Report	Specified Assurance Information
(IV) Metrics and Targets	Capital deployment - disclose the amount of capital expenditure, financing or investment deployed towards climate-related risks and opportunities.	86, 88-89	-
	Internal carbon prices - disclose an explanation of whether and how the issuer is applying a carbon price in decision-making or an appropriate negative statement that the issuer does not apply a carbon price in decision-making.	79-80	-
	Remuneration - disclose whether and how climate-related considerations are factored into remuneration policy, or an appropriate negative statement.	20, 85, 90, 137	-
	Industry-based metrics - consider the applicability of the industry-based metrics under the international ESG reporting frameworks and make appropriate disclosures.	85-89	-
	Climate-related targets - disclose any targets the issuer is required to meet by law or regulation, including any greenhouse gas emissions targets, and disclose in further detail on the issuer's approach to setting and reviewing climate-related target, its performance against each target, and an analysis of trends or changes in its performance. Without setting and disclosing climate-related targets, an issuer should disclose its work plan, progress and timetable for setting and disclosing these targets.	85-86	-
	Applicability of cross-industry metrics and industry-based metrics - refer to and consider the applicability of cross-industry metrics.	85-89	-

International Sustainability Standards Board (ISSB) “Sustainability Disclosure Standards of IFRS S2 – Climate-Related Disclosures” (IFRS S2)

IFRS S2 Recommendations		Page or direct explanation
Governance: The governance processes, controls and procedures used to monitor, manage and oversee climate-related risks and opportunities		
Information on the governance body(s) or individual(s) responsible for oversight of climate-related risks and opportunities		77-78
Management's role in the governance processes, controls and procedures used to monitor, manage and oversee climate-related risks and opportunities		77-78
Strategy: Approaches for managing climate-related risks and opportunities		
The climate-related risks and opportunities that could reasonably be expected to affect the entity's prospects		79-80
Expected timeframe for the occurrence of those climate-related risks and opportunities		79-80
Climate-related risks and opportunities in the value chain		79-80
Effect of the climate-related risks and opportunities on strategies and decision-making		79-80
Climate-related transition plan		79-80, 87-89
Current and anticipated effects of the climate-related risks and opportunities on financial position		79-84
Climate resilience		81-84
Risk management: The processes used to identify, assess, prioritize and monitor sustainability-related risks and opportunities		
Information on the processes and related policies for identifying, assessing prioritizing and monitoring climate-related risks		78, 85
Information on the processes for identifying, assessing prioritizing and monitoring climate-related opportunities		78, 85
Describe how processes for identifying, assessing prioritizing and monitoring climate-related risks and opportunities are integrated into the overall risk management process and how it affects the company		78-80, 85
Metrics and targets: The performance in relation to climate-related risks and opportunities, including progress towards any targets the entity has set or is required to meet by law or regulation		
Metrics used to measure and monitor climate-related risks and opportunities		85-89
Disclose information in relation to the categories of cross-industry metrics		85-89
Quantitative and qualitative climate-related goals set for monitoring the progress of realization of its strategic goals, the approaches for examining the goals, and the performance against the goals		85-89

Appendix III: Readers’ Comments Form

Respected readers:

Thank you for reading this report. We appreciate and look forward to your feedback. Your opinions and suggestions are important for us to continuously improve corporate ESG information disclosures and promote corporate ESG management and practice. Welcome and sincerely thank you for your valuable opinions!

1. Your overall assessment of our ESG performance is:

☐ Excellent ☐ good ☐ average ☐ bad ☐ very bad

2. Your overall assessment of this report is:

☐ Excellent ☐ good ☐ average ☐ bad ☐ very bad

3. What do you think of our performance in communication with stakeholders?

☐ Excellent ☐ good ☐ average ☐ bad ☐ very bad

4. What do you think of our performance in corporate governance?

☐ Excellent ☐ good ☐ average ☐ bad ☐ very bad

5. What do you think of our performance in environmental management?

☐ Excellent ☐ good ☐ average ☐ bad ☐ very bad

6. What do you think of our performance in social responsibility?

☐ Excellent ☐ good ☐ average ☐ bad ☐ very bad

7. What do you think of our performance in ESG?

☐ Excellent ☐ good ☐ average ☐ bad ☐ very bad

8. What are your opinions and suggestions for our ESG performance and this report?

Lower Carbon Empower Better Life