

# Environmental, Social and Governance Report 2024

Hubei Energy Group Co., Ltd.





# **About This Report**

This Environmental, Social and Governance (ESG) Report is intended to provide a thorough and impartial overview of the Company's philosophy, policies, and accomplishments in terms of sustainable development in environmental, social and governance aspects, aiming to offer stakeholders clear, precise, and valuable information about the Company's sustainability initiatives.

#### Basis for preparation

This Report was prepared according to the *Work Plan for Improving the Quality of Central State-owned Enterprises' Listed Companies* issued by the State-owned Assets Supervision and Administration Commission (SASAC) of the State Council, the *Code of Corporate Governance for Listed Companies* issued by the China Securities Regulatory Commission (CSRC), the *Self-Regulatory Guidelines No. 1 for Companies Listed on Shenzhen Stock Exchange - Standardized Operation of Companies Listed on the Main Board* and the *Self-Regulatory Guidelines No. 17 for Companies Listed on Shenzhen Stock Exchange - Sustainability Report (for Trial Implementation)* issued by Shenzhen Stock Exchange and other requirements under the principles of materiality, consistency and objectivity. It also draws on the *Corporate Sustainability Disclosure Standards - Basic Standards (for Trial Implementation)* issued by the Ministry of Finance, the *Self-Regulatory Guidelines No. 3 for Companies Listed on Shenzhen Stock Exchange - Preparation of Sustainability Reports* issued by Shenzhen Stock Exchange, and the *GRI Sustainability Reporting Standards* (GRI Standards) issued by the Global Reporting Initiative (GRI). Besides, it proactively aligns with the United Nations Sustainable Development Goals (SDGs).

#### Reporting scope

This Report is an annual report, covering the period from January 1, 2024 to December 31, 2024. To make the Report more comparable and perspective, some contents may be traced back to previous years or extended to the coming years as necessary. The disclosures and data provided in this Report cover HBEG and its affiliated companies, and the scope of the Report is consistent with that of the Annual Report 2024.

#### Reliability

Data in this Report are mainly derived from the Company's Annual Report 2024 and relevant documents. All currency amounts mentioned in this Report are in RMB unless otherwise stated. The Company guarantees that there is no false record or misleading statement in this Report, and the Report was released after approval by the Board of Directors.

#### Terms of address

For ease of presentation and reading, Hubei Energy Group Co., Ltd. is hereinafter referred to as "HBEG", "the Company" or "we" in this Report, depending on the context. HBEG's subsidiaries are mainly denoted in abbreviated forms, and their full names and abbreviated names are shown in the Appendix - "Directory of Main Companies".

#### Availability

This Report was prepared in both simplified Chinese and English and released in a PDF electronic form. It can be downloaded from HBEG's official website (www.hbny.com.cn) and http://www.cninfo.com.cn/. In case of discrepancy between Chinese and English versions, the Chinese version shall prevail.

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## **Message from the Board of Directors**

### Building a Brighter Future Together Through High-Quality and Sustainable Development

We sincerely thank all sectors of society for their continued support and interest in Hubei Energy Group Co., Ltd.

The year 2024 marks the 75<sup>th</sup> anniversary of the founding of the People's Republic of China and serves as a pivotal year for fulfilling the objectives of the 14<sup>th</sup> Five-Year Plan. Over the past year, we closely aligned our efforts with the state' carbon peaking and carbon neutrality goals and the strategic mission of establishing a new power system. Committed to becoming a first-class regional integrated energy group, we worked diligently to integrate ESG principles into our corporate strategy and daily production, operations and management. These efforts have strengthened our core capabilities, enhanced our competitive edge, and propelled us to new heights in high-quality development.

We have accelerated our green transformation, staying firmly committed to protecting our clear waters and green mountains. By keeping pace with the ongoing energy transformation and actively supporting national priorities, we have accelerated the transformation toward green and low-carbon development to safeguard our beautiful homeland. We have significantly built up the strength, quality and size of the clean energy business. Our first large-scale renewable energy project outside the province, 2.1 GW photovoltaic base of Phase I of the Northern Shaanxi-Hubei ±800 kV UHVDC transmission project, has now been connected to the grid and generating electricity. Our total installed capacity for renewable energy surpassed 7 GW, marking a 59% year-over-year increase and a notable rise in the share of clean energy. Throughout the year, our clean energy power generation reached 17.5 TWh, helping reduce emissions by approximately 14.39 million tons of carbon dioxide, 1,349 tons of sulfur dioxide, and 2,190 tons of nitrogen oxide. We remained committed to carbon reduction by implementing the low-carbon transformation and improving the energy efficiency of our coal-fired units. The average coal consumption for power generation dropped by 5.57 g/kWh, indicating continuous advances in the clean power generation. We also adopted a comprehensive approach to biodiversity protection and climate change response, actively promoted the harmony between humans and nature, and protected our clear waters and green mountains, contributing to the vision of a Beautiful China.

We have firmly kept in mind our mission and unswervingly fulfilled our social responsibilities. We have always regarded "improving people's well-being and giving back to society" as our core values. By leveraging our capabilities to meet the needs of the society, we have worked to ensure that the public can share in the achievements of state-owned enterprise development. As a dependable pillar of energy supply assurance, we effectively responded to two rounds of extreme cold early in the year and a prolonged heatwave during summer. In 2024, we delivered 44.04

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for regional economic and social development. We also harnessed the driving force of large-scale energy infrastructure to support local growth, making solid progress on key projects including the Jiangling Power Plant, Luotian Pingtanyuan Pumped Storage Project, Nanzhang Zhangjiaping Pumped Storage Project, and Changyang Qingjiang Pumped Storage Project. Our total investment for the year reached RMB 11.9 billion, and our contribution in taxes and fees reached RMB 2 billion. Besides, we implemented 19 social responsibility projects in the whole year with a combined investment of RMB 10.389 million, making active contributions to promoting all-round rural revitalization.

We are dedicated to pursuing excellence and establishing ourselves as leaders in driving reform and innovation. In the year 2024, with a strong emphasis on reform, we steadily advanced actions for deepening and upgrading the reform of SOEs, achieving an 85% completion rate and earning the "Double-Hundred Enterprises" benchmark rating from the State-owned Assets Supervision and Administration Commission (SASAC). We continued to strengthen our ESG management system, and our ESG case studies were included in the Overseas ESG Blue Book of Central State-owned Enterprises. We also improved the quality of our listed companies, with our information disclosure efforts receiving an A-level rating in the assessment by the Shenzhen Stock Exchange. In addition, we confidently embraced innovation, with a focus on solidifying our role as a key driver of innovation. Our investments in science and technology, the number of new research projects, and the volume of patents granted have all reached a record high. We have been honored with 6 science and technology achievement awards at the provincial, ministerial, and national industry association levels. We also made bold strides into new areas, with a focus on cultivating new quality productive forces. We steadily gained momentum in emerging business forms and models, such as renewable energy testing and maintenance, virtual power plants, and low-carbon (zero-carbon) industrial parks.

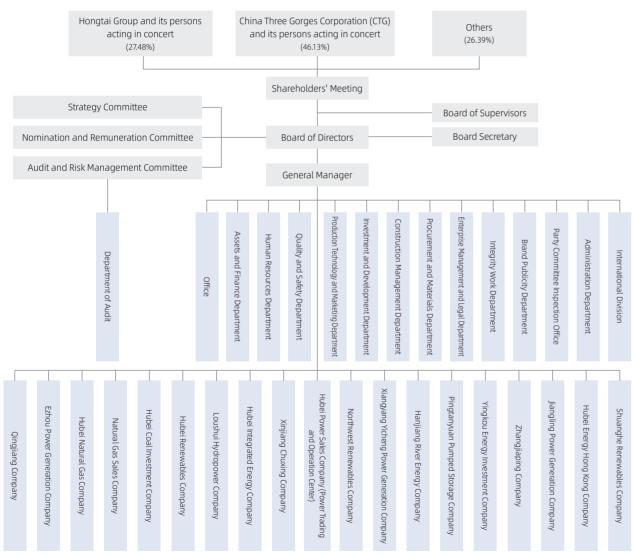
Through hard work, we turn dreams into reality, and through practical actions, we shape the future. The year 2025 marks the conclusion of the 14 Five-Year Plan and the planning phase for the 15<sup>th</sup> Five-Year Plan, as well as the 20<sup>th</sup> anniversary of HBEG. In the future, we will remain focused or our goal of becoming a first-class regional integrated energy group, stay true to our principles while exploring new ideas for development, and forge ahead with determination in our "second entrepreneurial" journey, thus writing the chapter of our development over the next 20 years, and making even greater contributions to the building of a strong country, and rejuvenation of our nation through Chippes modernization.

We eagerly look forward to working alongside all sectors of society as we embark on this exciting journey together, aiming for long-term succest and a promising future of high-quality, sustainable development!

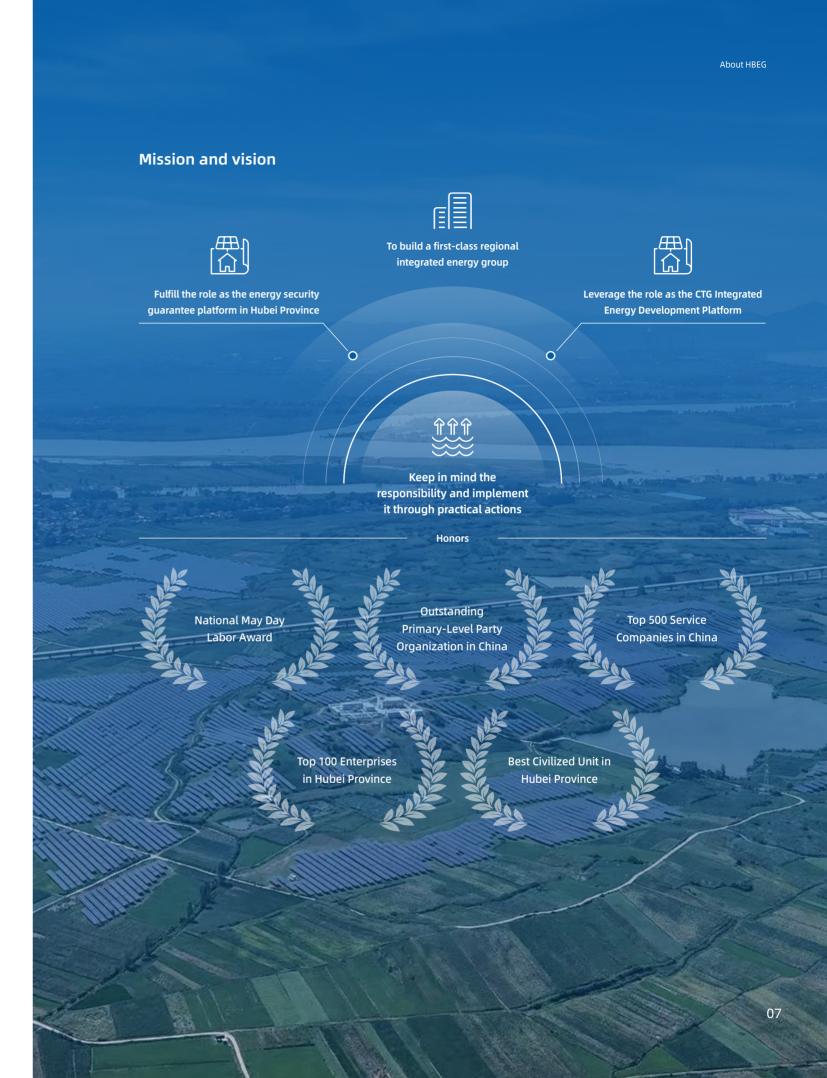
#### **About HBEG**

### **Company Profile**

Hubei Energy Group Co., Ltd. was founded in February 2005 by the merger of the former Hubei Qingjiang Hydropower Investment Company and Hubei Electric Power Development Company and was listed on the main board of the Shenzhen Stock Exchange in 2010 with the stock code 000883. Over the past 20 years, HBEG has fully capitalized on its dual role as the Hubei Province Energy Security Platform and the CTG Integrated Energy Development Platform. It has built two key energy hubs (i.e., a hydropower base in western Hubei and a thermal power base in eastern Hubei), and developed two province-wide supply networks for natural gas and coal. It has now formed a comprehensive energy portfolio that includes hydropower, thermal power, wind, solar power, coal, gas, and energy storage. With continuous growth in scale, operational efficiency, strategic function, and value contribution, it has become the largest energy and power company in Hubei Province. By the end of 2024, its controllable installed capacity had reached 18.3 GW. In Hubei, it has a controllable installed capacity of 14.92 GW, accounting for 14.7% of the province's total installed generation capacity (excluding the installed generation capacity of the Three Gorges Hydropower Plant).



Equity Structure and Organization Chart of HBEG



### **Development Course**

1987 1988 2008 2005 2007 Hubei Qingjiang Hydropower Development Company was founded. The construction of Ezhou Power Plant was begun in Hubei The CPC Hubei Provincial Committee The Hubei Provincial People's **HBEG** underwent It is the first basin-based hydropower development company in Province. The power plant which was developed based on a and the Hubei Provincial People's Government and China Three China established under the modern corporate governance system. model of "one-time planning, three-phase construction" has Government decided to merge Hubei Gorges Corporation signed a restructuring, Qingjiang Cascade Hydropower Plant is China's first large-scale grown into the largest thermal power plant in Hubei Province in Qingjiang Hydropower Investment transitioning into a jointstrategic cooperation agreement hydropower project primarily organized and built by local entities and terms of installed capacity, with the most comprehensive power Company and Hubei Electric Power on energy, with HBEG securing a stock company. also the largest hydropower base in Central and Eastern China except generation structure. It also serves as a major power source for Development Company to form Hubei strategic investment from China the Three Gorges Hydropower Plant. Central China Grid, supporting the west-to-east and south-to-Energy Group Co., Ltd. ("HBEG") Yangtze Power Co., Ltd. north transmission of electricity. 2015 2014 2013 2010 2009 China Three Gorges Corporation Ezhou Power Plant became the first company to HBEG's first photovoltaic power HBEG was listed on the Hubei Province Natural Gas Development Co., Ltd. and HBEG underwent a strategic complete a transaction in the carbon emission trading generation project, the first phase Shenzhen Stock Exchange. reorganization, and HBEG completed market in Hubei, marking a significant milestone for of Photovoltaic Power Generation was established, marking a private placement, making Project of Wuhan Huashan Ecological HBEG's entry into the it a subsidiary controlled and New Town, was put into operation. primary energy sector. consolidated by China Three Gorges 2019 2020 2016 2024 Chuxing Combined Heat HBEG acquired the Chaglla The total installed capacity of HBE The construction of three pumped storage projects, The first large-scale renewable energy Luotian Pingtanyuan Pumped Storage Project, Nanzhang Zhangjiaping Pumped Storage Project, and Changyang surpassed 10 GWh, making it the and Power Project of HBEG Hydropower Station in Peru project outside the province of HBEG, 2.1 GW was launched. largest integrated power generatio photovoltaic base of Phase I of the Northern in partnership, marking the company in Hubei Province. Qingjiang Pumped Storage Project, commenced success Shaanxi-Hubei ±800 kV UHVDC transmission start of HBEG's expansion into international energy markets. and the total installed capacity of HBEG's ongoing pumpe project, was connected to the grid for power storage projects reached 4.4 GW, accelerating the formation of its integrated energy portfolio.

#### **Business Overview**



A total of **4.6573** GW of installed capacity was put into operation, primarily comprising the Qingjiang Shuibuya Cascade Hydropower Station, Geheyan Hydropower Station, Gaobazhou Power Station along the Qingjiang River, as well as medium- and small-scale hydropower plants like Jiangpinghe and Dongping hydropower plants, and Chaglla Hydropower Station in Peru.





A total of **6.63** GW of installed capacity was put into operation, mainly comprising Ezhou Power Plant, Donghu Gas Turbine Power Plant, Chuxing Power Plant, and Yicheng Power Plant.





A total of **7.0124** GW of installed capacity was connected to the grid, including 1.2316 GW from wind power, 5.6948 GW from photovoltaic power, and 86 MW from stored energy.





HBEG plans to build pumped storage power stations in three areas (eastern Hubei, western Hubei, and northwestern Hubei) close to the power load center. To be specific, Pingtanyuan Pumped Storage Power Station has a power generation capacity of 1.4 GW, Changyang Pumped Storage Power Station has a power generation capacity of 1.2 GW, and Zhangjiaping Pumped Storage Power Station has a power generation capacity of 1.8 GW.





In Jingzhou City, Hubei Province, a coal rail-water transportation, storage, and distribution base with an annual handling capacity of **50** million tons of coal is being built in two phases. This project is to build a coal supply guarantee platform in Hubei Province.





HBEG managed 675 km of long-distance transmission pipelines, 285.9 km of medium- and low-pressure urban gas pipelines, and 4 urban gas companies, aiming to establish a robust natural gas management and supply platform for Hubei Province.

### **Major Projects Under Construction**

Jiangling Power Plant Phase II Expansion Project reheat, condensing coal-fired generator units, each with a capacity of 660 MW. The project also comprises flue gas desulfurization and denitrification systems, with a designed annual power output of 5.94 TWh.

**Luotian Pingtanyuan Pumped Storage Project**  The power plant will have a total installed capacity of 1.4 GW (4 × 350 MW), with an expected annual

**Changyang Qingjiang Pumped Storage Project**  The project is located in Longzhouping Town, Changyang Tujia Autonomous County, Hubei Province. It will have a total installed capacity of 1.2 GW (4 × 300 MW), with an expected annual generation of 1.34 hours for power generation and 1,484 hours for pumping.

Nanzhang Zhangjiaping **Pumped Storage Project**  The project is located in Limiao Town, Nanzhang County, Hubei Province. It will have a total installed

2.1 GW Photovoltaic Base of Phase I of the Northern Shaanxi-Hubei ±800 kV **UHVDC Transmission Project** 



# **Key Performance**

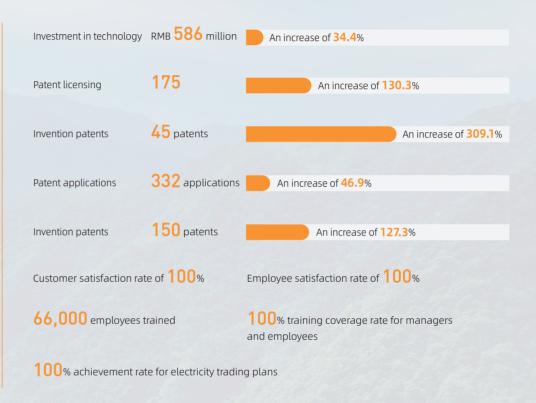


Record-high power	<b>44.04</b> TWh	An increase of 23%
generation capacity		
Total installed capacity	<b>18.3</b> GW	An increase of 17%
Total profits	RMB <b>2.803</b> billion	
τοιαι ρισπις	RIVID Z.000 DILLIOIT	An increase of 23%
Return rate of net assets	5.53%	An increase of <b>0.58</b> percentage point
Operating cash ratio	32.11%	An increase of 14.62 percentage points
Asset-liability ratio	58.63%	An increase of <b>0.8</b> percentage point
	4.00	
Overall labor productivity	RMB 1.97 million/person	An increase of <b>16</b> %



	Proportion of circulating water consumption	97.83%	An increase of	<b>0.09</b> percentage point
	Clean energy power	<b>17.5</b> TWh	An increa	se of <b>1.7</b> TWh
Ġ	generation			
	Proportion of installed capacity of clean energy	64%		An increase of <b>6</b> percentage points
(	Average coal consumption for thermal cower generation	<b>302.48</b> g/kWh	A decrease of <b>5.5</b>	<b>7</b> g/kWh
	<b>99</b> % compliance rate fo	or all atmospheric pollutant er	nissions from thern	nal power plants
A	An investment of RMB 1	85.5075 million in ecolo	gical and environm	nental protection
	3.8 million green certif	icates issued and 217 GWh	of green electricity	traded







100% participation rate of employees in anti-corruption and anti-commercial bribery training

**0** incident of unfair competition

An "A" ( Excellent) rating for information disclosure among main board listed companies at the Shenzhen Stock Exchange

**33**% proportion of independent directors

33% proportion of directors with a doctoral degree

# Contribution to the U.N. Sustainable Development Goals for 2030

Sustainable development goals	Our actions	Corresponding chapters
1 NOVERTY  广下文作中中	<ul> <li>Supporting rural revitalization through charitable donations and consumption support initiatives for rural revitalization</li> <li>Providing employment opportunities for the society</li> </ul>	<ul><li>Social Responsibility and Contribution</li><li>Employees</li></ul>
2 ZERO HUNGER	Strengthening employment assistance for people in need and further enhancing industrial support	■ Social Responsibility and Contribution
3 GOOD HEALTH AND WILL-REING	<ul> <li>Strengthening work safety, conducting regular health checks and occupational safety training for employees to prevent occupational diseases, and safeguarding employees' physical and mental well-being</li> </ul>	■ Employees ■ Work Safety and Occupational Health
4 QUALITY ENGLATION	<ul> <li>Continuing to carry out public education initiatives to promote educational equity</li> <li>Establishing a sound employee education and training system to support their career development</li> </ul>	<ul><li>Social Responsibility and Contribution</li><li>Employees</li></ul>
5 GENDER COUNTRY	<ul> <li>Ensuring equal pay for equal work, caring for female employees, and providing equal career development opportunities</li> </ul>	■ Employees
6 GEANWATER AND SANGEARDION	<ul> <li>Optimizing the water resource utilization structure, promoting recycling of sewage and wastewater, and improving the water use efficiency</li> </ul>	<ul> <li>Pollutant Emissions and Waste Disposal</li> <li>Resource Utilization and Circular Economy</li> </ul>
7 AFFORMARIE AND CLEAN INCIDENT	<ul> <li>Vigorously developing renewable energy businesses, actively advancing the construction of pumped storage projects, and continuously optimizing the energy structure</li> </ul>	<ul> <li>Special Topic II: Driving Transformation Through Green Development</li> <li>Combating Climate Change</li> <li>Resource Utilization and Circular Economy</li> </ul>
8 DECENT WORK AND ECHONTH	<ul> <li>Providing equal employment opportunities and competitive compensation</li> <li>Promoting employment in both domestic and overseas communities</li> </ul>	■ Employees ■ Social Responsibility and Contribution
9 NOISTRI INFOMILINI AND REVASTINCILIRE	<ul> <li>Increasing investment in R&amp;D and strengthening technological innovation</li> <li>Continuously advancing digital transformation</li> </ul>	■ Special Topic III: Empowering the Future Through Technology

For the Company's actions in response to the U.N. Sustainable Development Goals (SDGs), please refer to the relevant sections on environmental, social, and governance in this Report.

Sustainable development goals	Our actions	Corresponding chapters
10 REDUCED NODES	<ul> <li>Prioritizing employee equality and diversity; prohibiting child labor and forced labor; forbidding all forms of discrimination</li> </ul>	■ Employees
11 SICTIANAGE CITES AND COMMONTES	<ul> <li>Ensuring the secure and stable energy supply and promoting economic stability</li> <li>Fostering long-term, stable, and harmonious partnerships with communities</li> </ul>	<ul> <li>Special Topic I: Fulfilling Responsibilities Through Energy Supply Assurance</li> <li>Social Responsibility and Contribution</li> </ul>
12 RESPONSE IN CONTRACT IN A REPORT IN A R	<ul> <li>Actively participating in the carbon trading market, developing green certificate and green electricity markets, and advocating green procurement as well as certification of green, low-carbon products and services</li> </ul>	<ul><li>Combating Climate Change</li><li>Suppliers and Customers</li></ul>
13 CLIMATE	<ul> <li>Proactively responding to climate change and consistently promoting energy conservation and carbon reduction</li> </ul>	<ul> <li>Special Topic II: Driving Transformation Through Green Development</li> <li>Combating Climate Change</li> </ul>
14 IFE BELOW MALER	<ul> <li>Ensuring ecological flow at hydropower plants to meet the downstream environmental water needs and restore threatened important fish populations through stock enhancement initiatives</li> </ul>	■ Ecosystem and Biodiversity Protection
15 UTE ON LAND	■ Conducting in-situ or ex-situ conservation of key species	■ Ecosystem and Biodiversity Protection
16 PEME AUSTRE AUSTREA NO STRONG NO STRUMENT NO STRUME	<ul> <li>Deepening state-owned enterprise reform, improving corporate governance, enhancing compliance management, and advancing anti-corruption and anti-bribery measures</li> </ul>	<ul> <li>State-Owned Enterprise (SOE) Reform</li> <li>Corporate Governance</li> <li>Business Conduct</li> </ul>
17 PARTINESSIPS FOR THE GALLS	<ul> <li>Strengthening communication and cooperation to achieve mutual benefit for all stakeholders</li> </ul>	<ul><li>Communication with Stakeholders</li><li>Corporate Governance</li><li>Information Disclosure and Investor Relations</li></ul>

# Materiality Assessment on Topics

# Establishment of a List of Topics

Alignment with policies and standards

Industry trend analysis

Due diligence

The ESG Working Group carried out a coordinated effort to conduct the Company's materiality assessment on topics, taking the analysis of impact materiality and financial materiality as a core element of ESG information disclosure. A closed-loop management mechanism spanning topic "identification, assessment, disclosure, and optimization" was established. This process followed a science-based and systematic approach to materiality analysis, aiming to comprehensively and accurately identify, disclose, and manage ESG topics in response to the core concerns of key stakeholders.

Under the Company's risk and internal control system, a comprehensive approach was taken to identify, monitor, and manage ESG risks, which formed the basis for establishing the Company's list of ESG topics.

Taking into account national policies and regulatory requirements, the Company identified ESG topics across the full value chain by reference to both domestic and international sustainability frameworks, such as the *Reference Index System on ESG Reports for Listed Companies Controlled by Centrally Administered State-owned Enterprises (SOEs)* issued by the State-owned Assets Supervision and Administration Commission of the State Council and the *GRI Standards*.

By analyzing the characteristics and development trends of the energy sector, the Company identified ESG topics that are closely tied to industry development.

Due diligence was conducted across all operational stages and core business areas of the Company, including but not limited to investment and development, engineering and construction management, production and operations, environmental and social impacts, governance structure, and the supply chain. Through internal data monitoring, on-site inspections, interviews, and communication with stakeholders, the Company identified the ESG topics with significant impacts on its operations.

Through a multi-dimensional analysis of both internal and external factors, the Company identified topic-related impacts, risks, and opportunities, and refined its list of ESG topics accordingly. Based on the 21 ESG topics specified in the *Self-Regulatory Guidelines No. 17 for Companies Listed on Shenzhen Stock Exchange - Sustainability Report (for Trial Implementation)*, the Company has independently identified **7** ESG topics closely aligned with its business and operations, forming a finalized list of ESG topics comprising **28** topics for the year 2024.

#### **Launch of the Materiality Assessment on Topics**



#### **Impact Materiality Survey**

External and internal stakeholders were invited to participate in an impact materiality questionnaire survey.

The survey covered a wide range of stakeholders, including government departments/regulatory bodies, shareholders, investment institutions, credit institutions, employees, customers, suppliers and partners, non-governmental organizations, local communities, the public, and the media. A total of 276 valid responses were collected.



#### Financial Materiality Survey

Shareholders, investors, and creditors were invited to participate in a financial materiality questionnaire survey, and a total of 27 valid responses were collected.

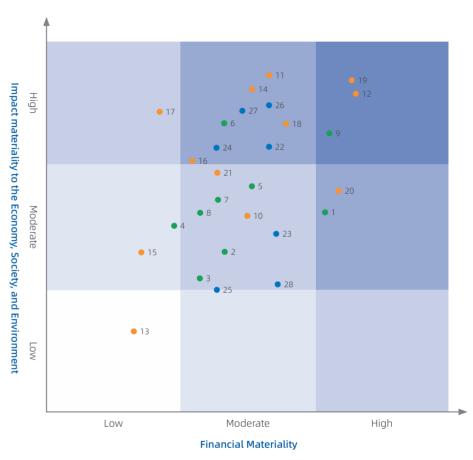


#### **Comprehensive Materiality Assessment**

The Company's ESG Working Group organized internal finance and business experts to conduct indepth discussions based on the questionnaire survey results. Topics were assessed comprehensively from multiple dimensions, including business operations, development strategy, financial performance, and risk management.

# Establishment of a Material Topics Matrix

By integrating the impact and financial materiality assessments of 28 ESG topics, the Company developed a material topics matrix. 5 topics were identified as having high financial materiality, i.e., energy supply assurance, low-carbon transition, innovation-driven development, climate change response, and work safety.



#### Environmental dimension

- 1 Combating climate change
- 2 Pollutant emission
- 3 Waste disposal
- 4 Ecosystem and biodiversity protection
- 5 Environmental compliance management
- 6 Utilization of energy
- 7 Utilization of water resources
- 8 Circular economy
- 9 Low-carbon transformation

#### Social dimension

- Rural revitalization
- Social contribution
- 12 Innovation-driven development
- Science and technology ethics
- 14 Supply chain security
- 1 Equal treatment of SMEs
- 16 Product and service safety and quality
- Data security and customer privacy protection
- 18 Employees
- Energy supply assurance
- Work safety
- 2 Community relations

#### Governance dimension

- Due diligence
- Communication with stakeholders
- 24 Anti-commercial bribery and anticorruption
- 25 Anti-unfair competition
- Risk control and compliance management
- 27 State-Owned Enterprise (SOE) Reform
- Composition of the boards of directors, supervisors, and senior executives, and compensation management

# Information Disclosure and Continuous Improvement

The ESG report adheres to the principle of combining comprehensiveness with a clear focus. It fully utilizes the results of the annual materiality assessment to cover all ESG topics and provides detailed disclosure on topics of high financial materiality following a structured disclosure framework based on "Governance - Strategy - Management of Impacts, Risks, and Opportunities - Metrics and Targets".

More efforts were put into the ESG risk and opportunity monitoring and management in all respects. Leveraging the Company's risk control and performance evaluation systems, risks were strictly managed, and opportunities were actively seized. Dedicated action plans were developed with clear timelines and defined objectives, and accountability was enforced for major risk losses caused by poor management. The Company regularly tracked domestic and international ESG policies, industry trends, stakeholder feedbacks, and ESG performance data to dynamically adjust the list of material topics, improve the topic identification and disclosure processes and strategies, and revise relevant management systems.

### **Communication with Stakeholders**

### Mechanism Development

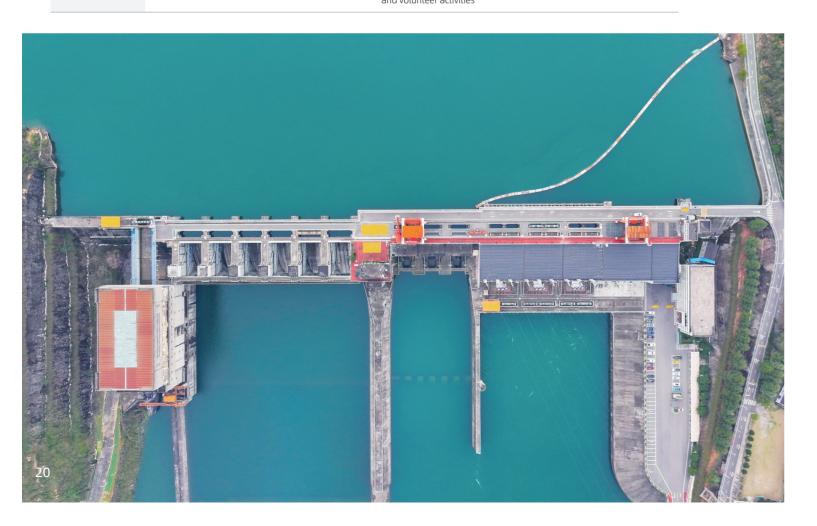
A multidimensional and regular stakeholder communication mechanism was established to enhance the transparency of information disclosure and the effectiveness of interaction. Through the official website, investor relations platforms, and social media channels, the Company has developed an information disclosure system that covers financial performance and ESG progress. The ESG report is also available in English to meet the needs of international communication.

Disclosure content	Disclosure channel	Disclosure frequency
■ ESG practice ■ ESG policy	<ul> <li>Official website of the Company</li> <li>Official WeChat public account of the Company</li> <li>http://www.cninfo.com.cn/</li> <li>Official website of Shenzhen Stock Exchange</li> <li>Performance briefing</li> <li>Investor Q&amp;A</li> </ul>	In the real time
■ Key ESG issues	<ul><li>ESG information declaration to rating agencies</li><li>Investor Q&amp;A</li></ul>	On an irregular basis
<ul> <li>Summary of ESG practices</li> <li>Summary of key ESG issues</li> <li>ESG report</li> <li>Annual report/semi-annual report</li> <li>Special report</li> </ul>		Annually/semi-annually

### **Communication practices**

Stakeholders	Key focuses	Ways of communication	Response from the Company	Communication highlights in 2024
Government departments and regulatory agencies	<ul> <li>Law and discipline observance</li> <li>Stimulating the local economy</li> <li>Energy supply assurance</li> <li>Energy safety</li> </ul>	<ul> <li>Attending relevant meetings</li> <li>Work reporting</li> <li>Information submission</li> <li>Policy consultation</li> </ul>	<ul> <li>Strengthening compliance management</li> <li>Ensuring energy supply</li> <li>Engaging in strategic cooperation</li> <li>Promoting energy conservation and emission reduction</li> </ul>	<ul> <li>We participated in key meetings such as Hubei Energy Work Conference, on which we delivered presentations and shared experiences on energy supply assurance, project development, and green transformation</li> <li>We visited energy regulatory authorities and participated in the research and site visits organized by local governments to proactively engage in the work and strengthen communication</li> <li>We took part in the "Visit to China CRC: Smart Youth Action" organized by China Carbon Emissions Registration and Clearing Co., Ltd. ("China CRC" for short), gaining insights into the development of the national carbon emission trading registration and clearing system</li> </ul>
Shareholders and investors	<ul> <li>Strategic planning</li> <li>Risk management</li> <li>Sustainable development</li> <li>Return on investment</li> </ul>	<ul> <li>Shareholders' Meeting</li> <li>Information disclosure</li> <li>The Company's website</li> </ul>	<ul> <li>Disclosing information in a timely and accurate way</li> <li>Strengthening ecological protection</li> <li>Fulfilling social responsibilities</li> <li>Striving to improve performance</li> <li>Generating corporate profits</li> </ul>	<ul> <li>We held 5 shareholder's meetings, including 4 occasions where small and medium investors attended in person, and reviewed 27 proposals</li> <li>We received an "A" rating for information disclosure work for the 2023-2024 fiscal year from Shenzhen Stock Exchange for main board listed companies</li> <li>We reported a total profit of RMB 2.803 billion</li> </ul>
Employees	<ul> <li>Salary and welfare</li> <li>Employee rights protection</li> <li>Career development</li> </ul>	<ul> <li>Labor contract</li> <li>Staff and Workers'         Representative         Congress</li> <li>Labor union activities</li> </ul>	<ul> <li>Complying with the terms of labor contracts</li> <li>Improving the compensation and employee rights protection system</li> <li>Perfecting the system of Staff and Workers' Representative Congress</li> <li>Conducting education and training programs</li> <li>Providing a platform for career development</li> </ul>	<ul> <li>We organized over 40 employee counseling sessions, with more than 1,800 employees involved, and conducted 1,300 visits to the objects of the "Five Must-Visit" initiative</li> <li>We held 463 occupational health training sessions, achieving 100% coverage for safety training among all employees</li> <li>We sent over 40 technical specialists to participate in various employee skill competitions, winning 8 awards</li> </ul>
Customers	<ul><li>Honest performance of contracts</li><li>Quality services</li><li>Quality assurance</li></ul>	<ul><li>Signing contracts and agreements</li></ul>	<ul> <li>Enhancing production and project quality management</li> <li>Ensuring a safe and stable supply of energy and electricity</li> </ul>	<ul> <li>We conducted a customer satisfaction survey with a 100% satisfaction rate</li> </ul>

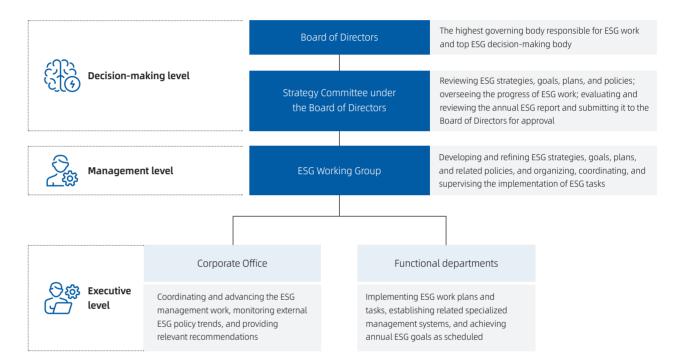
Stakeholders	Key focuses	Ways of communication	Response from the Company	Communication highlights in 2024
Suppliers and partners	<ul> <li>Mutual benefit and win-win cooperation</li> <li>Transparent procurement</li> <li>Business ethics</li> <li>Sustainable supply chain</li> </ul>	<ul> <li>Signing contracts and agreements</li> <li>Holding communication and discussion sessions</li> <li>Conducting correspondence and official communications</li> <li>Launching supplier training</li> </ul>	<ul> <li>Honest performance of contracts</li> <li>Transparent procurement</li> <li>Establishing long-term partnerships</li> </ul>	■ We held discussions with partners on topics such as digital transformation on energy, coal-electricity integration, energy supply assurance, and collaboration on renewable energy projects to advance mutually beneficial cooperation
Industry	<ul> <li>Fair competition</li> <li>Promoting industry advancement</li> <li>Promoting the development of the industry chain</li> </ul>	<ul> <li>Joining industry associations</li> <li>Participating in discussions and exchanges</li> <li>Taking part in standard compilation</li> </ul>	<ul> <li>Engaging in competition and cooperation</li> <li>Promoting mutual benefit and win-win cooperation</li> <li>Advancing technological progress</li> </ul>	<ul> <li>We won 1 Gold Award in Hubei High-Value Patent Competition</li> <li>We received 6 technological achievement awards at the provincial, ministerial, and national industry association levels</li> </ul>
Local communities	<ul> <li>Rural revitalization</li> <li>Public welfare donation</li> <li>Driving community development</li> </ul>	<ul><li>Conducting surveys and research</li><li>Organizing discussion and exchange sessions</li></ul>	<ul> <li>Implementing social responsibility projects</li> <li>Carrying out consumption support initiative for rural revitalization</li> <li>Organizing public welfare and volunteer activities</li> </ul>	<ul> <li>We implemented 19 social responsibility projects with a total investment of RMB 10.389 million</li> <li>We organized and engaged over 600 young employees to participate in more than 30 volunteer service activities</li> </ul>



# **ESG Governance**

# Governance structure

The Company has integrated ESG principles into its corporate governance system and established a comprehensive, clearly tiered, well-defined, and efficiently operating ESG governance structure, which clearly assigns responsibilities to all departments at all levels, and continuously refines institutional procedures, providing strong organizational support to ensure the effective implementation of the ESG work.



### **Work Objectives and Plans**

#### Core tasks



To support the national carbon peaking and carbon neutrality goals, actively integrate into the development of a new power system, and accelerate the Company's green transformation



To build an inclusive, safe, and harmonious development system for employees and communities, and promote fairness and mutual benefit of the value chain



To improve the ESG governance mechanism, strengthen compliance and internal control management, enhance information transparency and risk resilience, and ensure the Company's high-quality development

#### Goals in 2025



#### Environmental

- To achieve a **100**% approval rate for the environmental impact assessment of construction projects
- To ensure that all atmospheric pollutant emissions from thermal power meet the emission permit requirements

■ To ensure that the ecological flow discharge of hydropower operations meet the environmental

- To ensure **zero** environmental liability incidents
- To maintain full compliance with ecological environment and soil & water conservation regulations, with **no** administrative penalties from regulatory authorities



#### Social



- To achieve a minimum labor productivity of RMB 2 million per employee
- To attain an overall satisfaction rate of 90% in education and training programs
- To ensure that 100% of suppliers sign the integrity commitment
- To prevent any general or more serious work safety incidents (including traffic safety incidents)
   and cybersecurity events

To provide no less than RMB 5 million in the consumption support initiative for rural revitalization



#### Governand



- To improve the modern corporate governance system with Chinese characteristics
- To achieve 100% completion of the actions for deepening and upgrading the reform of SOEs

#### Work plan



#### Sound ESG management

- To optimize the Company's governance structure, embed ESG principles into the Company's production, operations, and management, and ensure that all departments and subsidiaries carry out ESG responsibilities in accordance with their roles and management authority
- To continuously improve the ESG policy framework and develop dedicated policies for key ESG topics
- To closely monitor domestic and overseas ESG-related policies and trends to improve the transparency and compliance in ESG information disclosure
- To establish a comprehensive ESG indicator system and develop an ESG indicator management manual
- To actively organize training programs with a focus on ESG-related business areas



#### ESG action improvement



# Accelerating green transformation

- Promoting high-quality development of renewable energy businesses and continuously increasing the share of clean energy
- Vigorously developing clean coal power businesses to improve the energy utilization efficiency and reduce carbon emission intensity
- Coordinating safety, quality, timeline, and cost management to steadily advance the construction of pumped storage projects



# Deepening the fulfillment of responsibilities

- Actively advancing all-round rural revitalization and integrating into and contributing to community development
- Strengthening employee training and development to continuously improve employee satisfaction
- Upholding the principles of fairness and integrity to deepen mutually beneficial cooperation with suppliers and partners



# Improving corporate governance

- Strengthening risk and internal control management to enhance the Company's development resilience
- Advancing the development of a lawbased enterprise and improving the compliance management system
- Optimizing the corporate governance process, promoting digital transformation, and improving decisionmaking efficiency and transparency

#### **Work Practices**

#### System construction

We implemented our *Environmental, Social Responsibility, and Corporate Governance (ESG) Management Measures* to build a comprehensive ESG management system covering the entire business chain.

#### Capability building



All members of the Strategy Committee under the Board of Directors have many years of experience in holding key positions in power generation and related enterprises, and possess professional expertise in areas such as corporate management, industry insights, and financial analysis.

engthening organizatio

The ESG Working Group is led by the executive in charge of ESG work, with heads of relevant departments serving as members. The group spans areas including financial management, environmental management, legal compliance, quality and safety, human resources, marketing, supply chain management, and technological innovation, ensuring comprehensive and professional support for the Company's ESG strategy.





#### **Conducting specialized training**

We organized training programs for mid- and senior-level management to deepen understanding of key areas such as ensuring energy security, advancing green energy transformation, strengthening ecological and environmental protection, and deepening SOE reform.

We strenathened collaboration with institutions including Zhejiang University, Huazhong University of Science and Technology, and Party School of the CPC Hubei Provincial Committee to host specialized training sessions, and invited renowned experts and scholars to deliver lectures and provide professional training in the field of ESG.

We participated in the 2024 China Carbon Market Conference under the theme "Deepening Exchanges and Cooperation in the Carbon Market to Address Global Climate Change", engaging in discussions on the development of a national carbon emission trading market, improvement of carbon pricing mechanisms, and establishment of a voluntary emission reduction trading market.

We took part in the professional training sessions on carbon asset management and trading organized by the Department of Ecology and Environment of Hubei Province, Shanghai Environment and Energy Exchange, and Beijing Green Exchange. 6 employees earned the Level I Carbon Emission Trader Certificate.



#### **Enhancing ESG performance ratings**



The overseas CSR case study titled "A Green Power Station Deep in the Andes Mountains, Writing a New Chapter in China-Peru Friendship" was selected as a comprehensive outstanding ESG case in the *Blue Book on Overseas ESG for Central State-owned Enterprises (2024).* 

The case study titled "Unwavering Commitment to Safeguarding People's Livelihoods and Supporting Green Development in Optics Valley" of Hubei Integrated Energy Company, an affiliated company of HBEG, was recognized as an outstanding case of the Service Innovation in Corporate Social Responsibility among power enterprises.

We were elected as one of the Top **100** Best ESG Practices of Chinese Listed Companies in 2024 by WIND ESG Rating.



We ranked **77**<sup>th</sup> among 636 listed companies in the energy sector on 2024 China's Top 100 Energy Listed Companies for Sustainability (ESG) evaluated by China Energy Research Society.

We ranked  $\mathbf{5}^{\text{th}}$  among 41 energy and power enterprises on the ESG Value List for China's Energy and Power Industry initiated by Sohu Finance.





We participated in events such as the Sustainable
Development Forum of China Three Gorges Corporation
themed "Insights into Transformation, Building a
Sustainable Future" and the Conference on Corporate
Social Responsibility and ESG Practices of Power
Enterprises launched by China Electricity Council. With
these events, we strengthened communication with peer
enterprises and professional ESG institutions to enhance
our influence in the ESG field.



We contributed to the drafting of the *Guidelines for Carbon Emission Factor Accounting During the Full Life Cycle in the Hydropower Segment of Power Generation Sector* organized by China Electricity Council. This standard is planned for submission to the Standardization Administration of China (SAC) as part of the national standard approval project under the carbon peaking and carbon neutrality initiative.

#### **Mechanism Development**

# Information reporting mechanism

Under the leadership of the Board of Directors, the ESG Working Group coordinates and oversees the development and implementation of ESG work plans by all departments, and takes the lead in convening ESG-related meetings, during which the departments will share the highlights and address the problems in their ESG work. Relevant plans, progress, and outcomes will be reported to the decision-making bodies in a timely manner.

#### Supervisory mechanism

The responsibilities of the Strategy Committee under the Board of Directors for overseeing the ESG work are clearly defined through regulations. The ESG Working Group reviews the Company's list of material topics, assesses related risks, opportunities, and impacts, and collects and examines ESG data and information to ensure alignment with reporting standards. The ESG report is allowed to be released only after being reviewed by the ESG Working Group, discussed in advance by the Party Committee, and approved by the Board of Directors.

#### Incentive mechanism

Key ESG performance indicators, such as environmental protection, work safety, legal compliance, technological innovation, and anti-corruption, are integrated into the executive performance evaluation system and serve as critical metrics in the year-end assessment of affiliated second-tier companies. Assessment results are directly linked to the performance bonuses for senior management and affiliated enterprises, establishing a robust evaluation and incentive mechanism that ties ESG performance to employees' compensation.



# **Special Topic I: Fulfilling Responsibilities Through Energy Supply Assurance**

#### Governance

#### **Governance structure**

**Leading Group for Energy Supply Assurance** 

Implementing the work arrangements of the superior department; formulating special plans for ensuring energy supply during peak summer and winter consumption periods; strengthening work coordination and organizational scheduling; coordinating to solve major problems in energy supply assurance.

Production Technology and **Marketing Department** 

Taking charge of the daily management and coordination of energy supply assurance; supervising and guiding all subsidiaries to ensure energy supply; organizing and carrying out special inspections on energy supply assurance; coordinating the handling of various problems and proposing suggestions for improvement.

**Functional departments** 

Carrying out relevant work according to their respective job responsibilities and forming a joint force for ensuring energy supply.

### Working mechanism

We have established a working mechanism of "weekly scheduling, monthly meetings, and quarterly analyses", held special meetings on energy supply assurance regularly, and coordinated to solve difficult problems in fuel transportation and equipment defect elimination.

We have established an information communication and reporting mechanism, clearly designated the responsible person and contact person in each subsidiary for energy supply assurance, and standardized information communication and transmission channels. We have also developed a review process for information and data about energy supply assurance, and ensured that responsibilities are assigned to specific positions and individuals.

In 2024



supply assurance convened



Key and difficult problems solved through coordination

58 problems

#### **Strategy**

At present, energy supply and demand is characterized by overall balance and shortage peak. The electricity consumption of the whole society continues to grow. In the event of extreme weather, there is still a certain gap in meeting the maximum electricity load during the peak summer and winter consumption periods. As the Hubei Province Energy Security Platform, the Company firmly shoulders its mission and responsibility, using coal-fired power to ensure the basic supply, hydropower to meet the peak demand, and renewable energy to expand the incremental supply. It coordinates the relationship between defect handling and equipment maintenance, energy marketing and fuel procurement, work safety and enterprise operation, flood control and water impoundment for ensuring power supply as an overall plan. Besides, it continues to improve the ability to increase and stabilize energy supply, and fully plays the role of "ballast stone" and "pillar" in energy supply assurance.



Classification	Impact description	Stakeholder	Impact scope	
Positive impact (+)	<ul> <li>Energy supply measures can provide strong support and guarantee for economic and social development.</li> </ul>	<ul><li>Government</li><li>departments</li></ul>	■ Enterprise	
Negative impact (-)	<ul> <li>The pressure of ensuring energy supply may lead companies to increase the use of high-carbon energy in the short term and increase carbon emissions.</li> <li>Energy supply interruptions may affect supply chain stability.</li> </ul>	<ul><li>Customers</li><li>Local communities</li></ul>	<ul><li>operation</li><li>Downstream of the value chain</li></ul>	



Classification	Factor	Impact description	Responding strategy	Impact cycle <sup>1</sup>	Impact scope
Market risks	Rise of fuel prices	The cost for ensuring energy supply will rise, the profit margins will be compressed, and operational pressure will increase.	<ul> <li>Increase the coverage rate of coal under long-term supply contracts</li> <li>Establish strategic cooperation with suppliers, control procurement pace and costs</li> </ul>	Short-to-medium term	Asset operation
Extreme climate risks	Extreme cold wave, high temperature in summer	■ The demand for energy will surge and the pressure on power supply will increase.	<ul> <li>Give full play to the advantages of multi-energy complementarity and integrated energy supply.</li> </ul>	Short-term	Asset operation
Technical risks	Sudden technical failure	<ul> <li>Energy supply will be interrupted, and energy security will be affected.</li> <li>Maintenance costs will increase.</li> </ul>	<ul> <li>Carry out high-quality unit maintenance and major technical upgrade tasks</li> <li>Strengthen monitoring and early warning, and establish an emergency response mechanism for technical failures</li> </ul>	Medium-to-long term	Asset products

<sup>&</sup>lt;sup>1</sup> Short-term: within 1 year; mid-term: 1-5 years; long-term: more than 5 years; the same applies below.



# Impact, risk, and opportunity management



Ensuring fuel reserves

We performed well in ensuring the supply and stabilizing the prices of coal and natural gas. We supplied 17.11 million tons of coal to Hubei, including 11.76 million tons of thermal coal to power plants in Hubei Province, an increase of 31% year-on-year. The coal supply quantity accounted for 19% of the coal consumption of power plants in the province. We transmitted 1.912 billion m<sup>3</sup> of natural gas, accounting for about 30% of the total quantity in Hubei Province.



Strengthening multi-energy collaboration Faced with severe challenges such as extreme cold waves at the beginning of 2024 and extremely long period of high temperature in summer in Hubei Province, we gave full play to the advantages of integrated energy supply and strengthened our capability of ensuring energy supply assurance.

#### Hydropower sector

Faced with the unfavorable situation of sharp changes and extreme uneven distribution of water inflow and an overall drought rate of 20% in the Qingjiang River Basin, Shuibuya Hydropower Station avoided 215 million m³ of spilled water, equivalent to 168 GWh of electricity generated by cascade power stations.

#### Thermal power sector

In response to the severe test of the double increase in power generation and deep peak-shaving duration, the daily power generation, monthly power generation and deep peak-shaving duration have repeatedly reached new highs.

#### Renewable energy sector

We made every effort to reduce power restrictions and ensure operation, resulting in a **36**% increase in power generation.

# Optimizing equipment management

We completed 103 maintenance tasks for hydropower and thermal power generation units and 535 regular inspections for wind turbines. 9 units (stations) have been awarded the "Excellent" grade by China Electricity Council, and 5A level photovoltaic stations have achieved "a breakthrough from zero to one". We strengthened the operation management of thermal power units under deep peak-shaving conditions, put great efforts to carry out rectification of reliability problems, and maintained a low rate of unplanned outage.

#### **Indicators and Goals**

Goals of energy supply assurance and fulfillment of the goals

- Safe, stable power generation, and reliable energy supply
- ✓ No shutdown or supply interruption caused by coal or gas shortage
- ✓ No unsafe incidents such as unplanned outage of the units during critical periods

Indicators of energy supply capability

Installed capacity

Our total installed capacity was **18.3** GW, an increase of **17**%. Among them, the installed capacity in Hubei Province was **14.92** GW, an increase of **4**%, accounting for **14.7**% of the total installed capacity in Hubei Province (excluding the installed capacity of the Three Gorges Hydropower Plant).

Power generation capacity

The annual power generation was **44.04** TWh (**39** TWh in Hubei Province), with a year-on-year increase of **23**%. The proportion of our power generation in Hubei Province in that of power plants under unified dispatch in the province increased from **17**% to **20**%.

Power generation load

During the peak summer consumption period, the maximum daily power generation capacity reached **8.23** GW, breaking records twice.



# Special Topic II: Driving Transformation Through Green Development





#### Governance

We have actively fulfilled the national carbon peaking and carbon neutrality goals and taken the initiative to integrate into the new power system. We have focused on promoting high-quality development of renewable energy business and continued to increase the proportion of installed capacity of clean energy. We have also accelerated the development of new forms and models of energy business, and strived to cultivate new quality productive forces.



We optimized the management mechanism of renewable energy projects. We formulated the *Special Reward Management Measures for the Acquisition of Renewable Energy Resources*, and stimulated the enthusiasm and initiative of resource acquisition through clear incentive mechanisms.



Relying on five specialized companies as renewable energy business development platforms (i.e., Hubei Renewables Company, Northwest Renewables Company, Hanjiang River Energy Company, Hubei Integrated Energy Company and Shuanghe Renewables Company), we promoted project construction and resource acquisition in a coordinated manner, and accelerated the expansion process of renewable energy business.



According to the external policy environment and project progress, we organized and held special promotion meetings for renewable energy projects in time to analyze, examine the problems and difficulties and coordinate to solve them in the project implementation process.



We formulated and implemented the *Three-Year Action Plan for New Business Forms and Models*, and made a layout for "Two New" businesses such as renewable energy maintenance and inspection, virtual power plants+ and integrated smart energy. We established a leading group with the general manager as the group leader, members of the management team as the deputy group leaders and the main heads of relevant units and departments as members. In addition, we established a monthly scheduling mechanism and strengthened organizational leadership and scheduling coordination for "Two New" businesses.

### Strategy



We have followed the main path of green development and put great efforts to develop renewable energy. We have continuously optimized energy structure, improved energy utilization efficiency through energy conservation and consumption reduction, and accelerated the innovation and application of green technology through technological research and development.

Classification	Impact description	Stakeholder	Impact scope
Positive impact (+)	<ul> <li>Increase the proportion of clean power generation, reduce carbon emissions, and contribute to the realization of global climate goals</li> <li>Provide cleaner and more sustainable energy supply for the society</li> <li>Create new market growth engines and drive the development of the upstream and downstream of the industrial chain</li> <li>Improve the local ecological environment, promote regional ecological balance, and create more livable environment</li> </ul>	<ul><li>Government departments</li><li>Customers</li><li>Suppliers and partners</li></ul>	<ul> <li>Upstream of the value chain</li> <li>Enterprise operation</li> <li>Downstream of</li> </ul>
Negative impact (-)	■ The access of renewable energy to the power grid in a large scale and a high proportion has an impact on the stable operation of the power grid	<ul><li>Local communities</li></ul>	the value chain



Classification	Factor	Description	Responding strategy	Impact cycle	Impact scope
Policy risk	Adjustment of national energy policies	<ul> <li>The reduction of subsidies for renewable energy and changes in carbon emission regulations and policies may affect the investment returns of the Company's renewable energy projects</li> <li>The difficulty of investment decision-making will increase</li> <li>Compliance requirements will become increasingly stringent</li> </ul>	<ul> <li>Pay close attention to changes in carbon emission regulations and policies, and adjust strategic plans and investment strategies in a timely manner</li> <li>Increase investment returns through carbon trading markets and green financial instruments</li> <li>Establish a sound compliance management system, and ensure that the construction procedures for renewable energy projects are in place with all formalities handled</li> </ul>	Short-to- medium term	Operational assets
Market risks	Intensified competition in the renewable energy market	<ul> <li>The cost of resource acquisition will rise</li> <li>The profitability of a project will decrease</li> <li>The return on investment will decrease</li> <li>Market share will decline</li> </ul>	<ul> <li>Optimize internal management and control construction costs while ensuring quality</li> <li>Adapt to the reform of the electricity market and improve the return on investment of renewable energy projects</li> </ul>	Mid-term	Operational products
	Shortage of energy and land resources	■ Difficulty in resource acquisition for new projects may lead to limited growth in the renewable energy business.	<ul> <li>Strengthen communication with local governments and work to obtain policy support</li> <li>Explore cross-regional cooperation to acquire high-quality renewable energy resources</li> </ul>	Mid-term	Operational products



#### Opportunity

Classification	Factor	Description	Responding strategy	Impact cycle	Impact scope
Policy	Support from green financial instruments	<ul> <li>Financing costs of low carbon projects will reduce and the profitability of the projects will increase</li> <li>Financial health will be maintained and market competitiveness will be enhanced</li> </ul>	<ul> <li>Actively seek support from relevant national green financial instruments to provide financial support for business development and project construction</li> </ul>	Medium-to- long term	Operational assets
opportunity	Construction of new power system	The development of new forms and models of energy business will create new market growth engines for enterprises	<ul> <li>Accelerate the development of new models such as virtual power plants, renewable energy storage system, and low-carbon (zero- carbon) industrial parks</li> </ul>	Medium-to- long term	Operational products
Technological opportunity	Application of digital technology	<ul> <li>The management level and operational efficiency of renewable energy projects will be improved</li> </ul>	<ul> <li>Strengthen the application of digital technology and promote the transformation and upgrading of traditional businesses</li> <li>Explore cooperation with leading digital technology enterprises</li> </ul>	Mid-term	Operational products

# Impact, Risk, and Opportunity Management

Promoting high-quality development of renewable energy business

Continuously enhancing the competitiveness of the "Two New" businesses

Advancing the construction of pumped storage projects at a steady pace

We promoted resource acquisition, grid connection and commissioning of renewable energy projects, and our newly added controllable installed capacity of renewable energy throughout the year reached **2.6279** GW. 2.1 GW photovoltaic base of Phase I of the Northern Shaanxi-Hubei ±800 kV UHVDC transmission project has been connected to the grid for power generation. The first-batch 400 MW projects at the Yicheng large base have been completed and put into operation, and the second-batch wind power projects have been connected to the grid for the first time. Thanks to these efforts, renewable energy has risen to become the Company's largest power source. Independent energy storage has achieved a breakthrough, with an installed capacity of **86** MW.

We established a renewable energy inspection and maintenance service company with professional qualifications covering all business fields and a service capacity of over **600** kW. Based on the actual energy consumption of Wuhan Asia-Europe Logistics Park, we planned and built multi-energy complementary projects such as distributed photovoltaic, energy storage and low-wind power generation, and created the Company's first low-carbon (zero-carbon) industrial park demonstration project. We built the Company's first virtual power plant, signed contracts with **40** users and aggregated a load of **600** MW. We successfully participated in the first inter-provincial peak-shaving transaction in the Central China.

The ventilation and safety tunnels of Changyang Qingjiang and Nanzhang Zhangjiaping pumped storage projects were successfully penetrated, and full efforts were put into the construction of the main works of these projects. The main power house of Luotian Pingtanyuan Pumped Storage Project was excavated to the sixth floor, and Pingtanyuan Pumped Storage Company completed the restructuring, introducing an external equity investment of RMB 200 million in the first phase.

Case



By seizing the opportunity of the Action Plan for Promoting Large-Scale Equipment Upgrades and the Replacement of Consumer Goods with New Ones issued by the state, we promoted the inclusion of the Phase I "Replacing Small with Large" of Qiyue Mountain Wind Farm Project into the first batch of national wind power transformation and upgrading demonstration projects, and made it become the first demonstration project in Hubei Province.







# Special Topic III: Empowering the Future Through Technology



#### Governance

#### **Organizational structure**

We set up a leading group for technological innovation and a leading group for cybersecurity and information technology, and established an efficient organizational mobilization system and a coordinated technology resource allocation model.

We enhanced the development of the Science and Technology Committee, set up 6 specialized committees, and built the Science and Technology Committee into a professional consulting body for technological innovation.

We established a management system under the responsibility of the leader in charge of technological innovation and digitization, under centralized management by Production Technology and Marketing Department and with the participation of functional departments through division of labor.

#### Specifications

Work Management Measures of the Science and Technology Committee (for Trial Implementation)

Scientific and Technological Work Management Policy, Scientific Research Project Management Measures

Rules for Evaluation and Reward of Technological Innovation Results Intellectual Property Management Measures

Management Measures for Intellectual
Property Rewards (for Trial Implementation)

Measures for Review and Reward of Employees' Technical Achievements

### **Working mechanism**

Establishing a regular meeting mechanism for technological innovation

Setting up a leadership responsibility system for scientific research projects

Building an assessment mechanism for technological innovation

Improving the incentive mechanism for technological innovation

We held regular meetings on a monthly basis to timely study and arrange key tasks, solve major problems in technological innovation, and summarize and promote experience and good practices.

Key scientific research projects were led and managed by main heads of various subsidiaries and leaders in charge of science and technology, who were responsible for promptly analyzing and solving key and difficult problems during the project implementation process.

The special item "technological innovation" was added to the *Annual Performance Assessment Methods for Affiliated Enterprises*, incorporating technological innovation and digitization into performance assessments. According to the principle of "overall arrangement and classified assessment", the technological innovation assessment was included in the annual assessments of **14** subsidiaries and the performance assessment of the management teams during the term of office from 2022 to 2024, highlighting key indicators such as R&D investment, completion rate of scientific research projects, and the "Climbing Plan" for intellectual property rights.

We further defined the mechanism for recovering the benefits of R&D investment and the reward mechanism for scientific and technological achievements, strengthened incentives and guidance for technological innovation, and organized our first conference for rewarding technological innovation achievements. In 2024, we distributed RMB **452,000** in rewards for technological innovation.

### **Strategy**



#### Development targets

We aim to establish and improve the technological innovation system and mechanism that focus on green and low-carbon energy transformation, digitization, intelligent and localized development. We plan to continuously increase R&D investment and strengthen R&D in key and core areas. We also work to produce high-quality scientific and technological achievements, and continuously enhance the driving force of technological innovation for our high-quality development.

#### **Key fields**

Optimal operation of cascade hydropower stations, intelligent detection and condition-based maintenance of power stations, intelligent construction of pumped storage power stations, flexible transformation and clean and efficient conversion of thermal power, application of advanced coal-fired power generation technology, cross-provincial centralized monitoring of renewable energy, capture and efficient utilization of wind and solar energy, automation and intelligent upgrading of natural gas, construction of smart pipeline networks, and construction of green, low-carbon and intelligent coal storage and transportation bases.

#### **Development plans**

We plan to launch mid-term evaluation and revision of the *Planning for Technological Innovation During the "14<sup>th</sup> Five-Year Plan" Period.* We also intend to establish a **4**-level R&D system of "business field, technology system, R&D direction and project library" and **22** technology systems, define **64** R&D directions, and plan more than **200** scientific research projects. Besides, we have plans to introduce and implement the *Digital Transformation Action Plan*. We prepare to build an integrated digital energy operation system composed of "1 center, 1 platform, 1 system and 8 major applications", and systematically arrange **26** key tasks in **7** aspects.



Classification	Impact description	Stakeholder	Impact scope	
Positive impact (+)	<ul> <li>Advance technological upgrading in the industry and improve energy utilization efficiency</li> <li>Promote digital transformation; improve production and management efficiency; enhance competitiveness; drive industrial upgrading</li> <li>Improve the intelligence level of the production process, reduce the risks of manual operations, and enhance work safety</li> </ul>	<ul><li>Shareholders and investors</li><li>Suppliers and partners</li></ul>	<ul><li>Upstream of the value chain</li><li>Enterprise operation</li></ul>	
Negative impact (-)	<ul> <li>Exert an impact on traditional energy business models and cause changes in some job responsibilities</li> <li>R&amp;D and application of new technologies may face risks of intellectual property disputes.</li> </ul>	■ Employees ■ Industry	<ul> <li>Downstream of the value chain</li> </ul>	



Classification	Factor Description		Responding strategy	Impact cycle	Impact scope
Technical risks	Digital transformation	<ul> <li>Digitization and artificial intelligence technologies are accelerating the transformation of the energy industry, and failure to adapt to technological iterations will affect market competitiveness and profitability.</li> </ul>	<ul> <li>Conduct more market surveys and technology trend analyses</li> <li>Optimize the R&amp;D direction of technologies, and accelerate technological updates and iterations</li> </ul>	Short-to- medium term	Operational products
Operational risks	Uncertainty in input and output of technological innovation	■ The output and application of technological innovation cannot meet expectations, resulting in wastage of input resources and affecting the Company's short-term profitability.	on cannot ulting in mechanism  Integrate technological innovation		Operation



### Impact, Risk, and Opportunity Management



#### Building a platform for technological innovation

We strengthened joint innovation among our subsidiaries and conducted research on forward-looking and generic technologies. We established a task-oriented innovation consortium, formulated the *Guidelines for the Construction of Technological Innovation Platforms (for Trial Implementation)*, and promoted the establishment of technological innovation platforms by 3 affiliated enterprises, namely Qingjiang Company, Hubei Renewables Company and Hubei Integrated Energy Company. We relied on key enterprises, research institutes and institutions of higher education to carry out collaborative innovation, and actively explored the establishment of an industry-university-research-application collaboration platform for technological innovation.



#### Strengthening the protection of intellectual property rights

We established and improved the basic framework for intellectual property management, strengthened incentives for patent authorization, and created a good atmosphere for protection of intellectual property rights. In 2024, we won 1 Gold Award in Hubei High-Value Patent Competition and 2 patent awards from China Three Gorges Corporation in 2024. According to the relevant standards for evaluating high-value patents, 12 patents were included in the scope of high-value patents. The Insulating Rod Voltage Withstand Testing Device of Qingjiang Company has become the Company's first technological achievement that has completed the full process management of "technological achievements that are licensed for use by others". The device marks a breakthrough in the commercialization of the Company's technological achievements. The Intellectual Property Protection Workstation has been jointly established with the Market Regulation Administration of Wuchang District and has been awarded the license.



#### Promoting digitalization

We promoted the digitalization in the fields of production and operation, engineering construction, spot trading and centralized procurement of coal in a coordinated manner. We planned and constructed an integrated platform for production and operation management, and integrated functions such as equipment management, operation management, two-ticket management, patrol inspection management, maintenance management and technical supervision management. In addition, we strengthened the application of new technologies such as artificial intelligence, drones and Beidou navigation satellite system to improve the efficiency and benefits of production and operation management.



#### **Indicators and goals**

#### Goals in 2024 and fulfillment of the goals

#### Goals in 2024



#### Fulfillment of the goals



To carry out research on key and core technologies and complete annual research tasks for national, provincial and ministerial-level scientific research projects such as "Multi-objective Dispatch Technology for Large-scale Cross-basin Water Transfer Reservoirs"

We obtained scientific research achievements such as the Report on Research Progress of Multi-objective Dispatch Technology for Largescale Cross-basin Water Transfer Reservoirs

To undertake 1 or more newly-added provincial or ministerial-level scientific and technological research projects

We undertook 1 project under the Hubei Province Construction Science and Technology Program

To realize the transformation of no less than 1 technological achievement

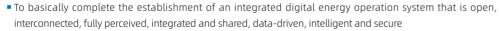
We signed patent license contracts for 11 technological achievements

To complete the "Climbing Plan" for intellectual property rights

We completed **332** domestic patent applications (including **150** invention patent applications), 175 domestic patent authorizations (including 45 invention patent authorizations) and 2 PCT international patent applications

#### Medium and long-term goals

#### **Goals of digitalization**



■ To support the full-scenario digitalization practice of hydropower, thermal power, wind power, solar power and energy storage businesses to empower lean management, intelligent production and the development of "Two New" businesses



- To achieve the complete carrying capacity of digital infrastructure and build a new generation of data centers and IoT platforms.
- To realize all-domain data collection and governance, ensure full flow of data elements, and fully realize the value of data
- To achieve full coverage of business applications in key fields, and form an integrated digital energy ecosystem with initial scale

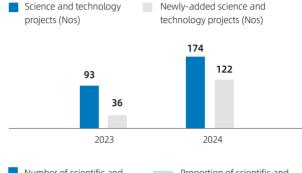


#### **Goals for technological innovations**

To build a first-class innovative enterprise in the region, form a complete integrated energy industry chain, construct a sound technological innovation system, and make significant progress in research and development of core technologies in key fields

#### Technological performance and innovation achievements

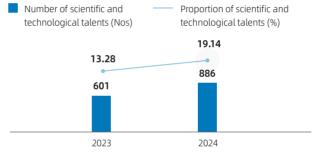
#### Technological performance

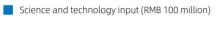


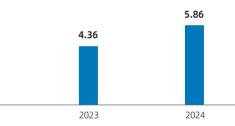


Number of invention patents applied to the main business 45 patents,

an increase of 350% year-on-year



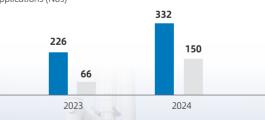






















#### **Technology innovation awards**

Intelligent Combustion Technology and Engineering Application of Flexible Fuel for Boilers based on Online Monitoring of Key Parameters

China Energy Conservation Association Special Prize of Invention Award for Energy Conservation and Emission Reduction Technology

Key Technologies for Optimal Configuration and Collaborative Peak Shaving of Multi-energy Complementary Systems with Multiple Power Sources and Multiple Power Grids

Changjiang Technology and Economy Society First Prize of Changjiang Science and Technology Award

Integration and Application of Key Technologies for Intelligent Simulation, Diagnosis, Operation and Maintenance of Large-scale Wind Power Generation

Changjiang Technology and Economy Society Second Prize of Changjiang Science and Technology Award Summary of Key Technologies for Jiangpinghe Hydropower Station Project

China Society for Hydropower Engineering First Prize of Science and Technology Progress Award

Key Technologies for Optimal Regulation and Control of Collaborative Power Generation of Generator Units Operated by Giant Hydropower Stations in the Upper Reaches of the Yangtze River

Second Prize of Hubei Provincial Science and Technology Progress Award

Research and Application of Key Technologies for Atomization Prediction and Protection of Flood Discharge in High Dams

> Chinese Hydraulic Engineering Society Second Prize of Dayu Hydraulic Engineering Science and Technology Award

Research and Demonstration Application of Unit Condition Monitoring System and Intelligent Early Warning Method in Geheyan Power Plant





We realized the effective integration and standardized access of large-scale high-throughput data in the power plant, and enhanced the capabilities of equipment condition monitoring and early warning for faults.





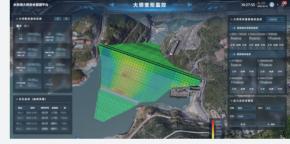
Research Project of 3D Visualization Technology for Dam Safety Management of Shuibuya Hydropower Station

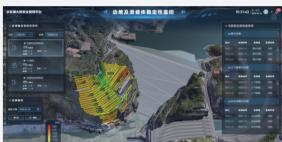
We built a digital power station based on BIM technology, created a "digital twin" dam, and achieved digital management of dam











Research and Construction of Digital Full-Process Control for Fuel Inspection in Coal-fired Power Plants





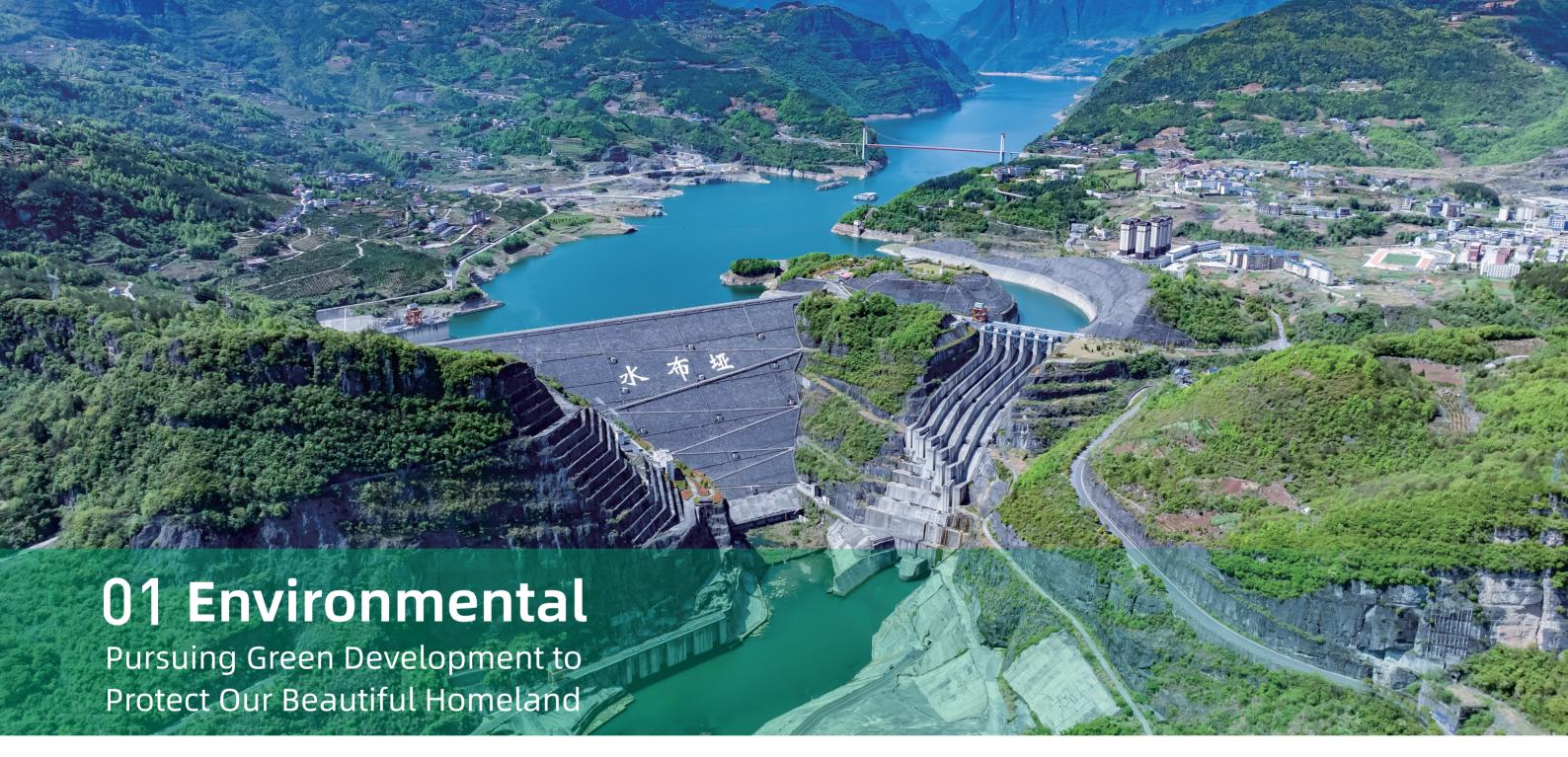
We achieved human-machine separation, human-sample separation and integrated collection and preparation of coal samples through remote monitoring and equipment control of key processes such as fuel measurement, reception and unloading, collection and preparation and testing.





#### **Science and Technology Ethics**

The Company is committed to ensuring that all technology research and development activities comply with ethical standards and respect data privacy and security, and that scientific research activities do not involve sensitive areas of science and technology ethics.



#### Practice of fulfilling responsibilities

We have upheld the concept of sustainable development and put great efforts to implement the "carbon peaking and carbon neutrality" strategy, where environmental compliance is regarded as the cornerstone, green transformation as the direction, and smart empowerment as the driving force. We have been committed to playing an important role as an energy enterprise in energy structure transformation, ecological and environmental protection and response to climate change, and worked to contribute to the modernization with harmonious coexistence between humans and nature.

#### Contribution to the U.N. Sustainable Development Goals (SDGs)















#### Environmental

Pursuing Green Development to Protect Our Beautiful Homeland

#### Social

Assuming Responsibilities and Advancing Mutual Benefit and Shared Growth Governance

Advancing Through Change and Pursuing Value Creation

In 2024

# 1.1

# **Environmental Management**

We have always taken environmental management as an important measure for practicing the concept of sustainable development. We have strictly abided by the *Environmental Protection Law of the People's Republic of China* and relevant laws and regulations on environmental management, and established our relevant systems for ecological and environmental protection. In addition, we have promoted the continuous improvement of eco-environment protection performance through environmental management throughout the entire life cycle.

# **Environmental Management System**

We built an eco-environment management system with mutual support and coordination among ISO14001 Environmental Management System, environmental management mechanism, comprehensive risk management and internal control system and environmental emergency management system. We also established a leading group for ecological and environmental protection to lead and coordinate our efforts in ecological and environmental protection. In addition, we strictly implemented the responsibility system for ecological and environmental protection, and integrated ecological and environmental protection and management into the entire life cycle and all aspects of business activities.



GB/T 24001-2016/ISO14001 Certification Certificate for Environmental Management System

#### **Environmental management goals 2024**

To ensure that all atmospheric pollutant emissions from thermal power meet the emission permit requirements

To ensure that the ecological flow discharge of hydropower operations meet the environmental

To achieve a 100% approval rate for the environmental impact assessment of construction projects

To ensure zero environmental liability incidents

We revised the *Rules for Ecological Environment Protection Assessment and Scoring* and formulated targeted assessment rules. We clearly allocated the annual key tasks of each subsidiary for ecological and environmental protection, and further improved the environmental protection assessment index system. Besides, we revised the *List of Responsibilities for Ecological and Environmental Protection* and clearly put forward the requirement that "those in charge of development, production and business must also be responsible for ecological and environmental protection". In addition, we organized training on ecological and environmental protection and management, gave special lectures on key points of environmental management throughout the entire life cycle of construction projects and key points of ecological and environmental protection for pumped storage projects, and enhanced the environmental awareness and business capabilities of management personnel.



Investment in ecological and environmental protection

RMR 185 5075 million



Environmental protection

In 2024

RMB 15.3029 million

# **Environmental Monitoring**

We established a comprehensive intelligent data management platform for real-time monitoring of air pollution emissions from thermal power plants and ecological flow of hydropower plants. Four thermal power enterprises installed the Continuous Emission Monitoring System (CEMS). With CEMS, the real-time data on atmospheric pollutant emissions were transmitted online to automatic monitoring and management systems for local pollution source, and environmental information was made public as required and subject to public supervision. Each hydropower station fully ensured ecological flow according to the requirements of ecological flow scheduling, and met the downstream environmental water needs. Except for the Geheyan, Bajiaohe Level 1, Sanliping and Dongping hydropower stations, which installed water level gauges due to the overlap of tailwater with downstream power plant reservoirs, all other hydropower stations have installed ecological flow monitoring and control facilities, and all data (images) have been included in the government regulatory platform for online monitoring and control.

### Legitimacy and Compliance in the Environmental Field

We formulated the Management Measures for Environmental Compliance Assessment, regularly collected and updated the List of Applicable Laws, Regulations and Normative Documents for Ecological and Environmental Protection, and checked item by item against the list. As a result, we prepared the annual environmental compliance assessment report. We strictly implemented the environmental impact assessment system and other regulations in accordance with the law, and had no illegal act of "construction without approval".



Approval rate for the environmental impact assessment of construction projects

100%



Number of sudden major environmental incidents

N



Number of ecological and environmental incidents that have suffered major administrative penalties or been held criminally responsible



# Environmental Risk Prevention and Control

We incorporated environmental risks into our comprehensive risk management system, and adopted the PDCA management method to identify risks, develop plans, implement measures and make continuous improvements. Based on the execution of ecological environment protection laws and regulations, the amount and impact of pollutants generated, energy and resource consumption, etc., we screened out key environmental risk factors and developed risk management strategies accordingly.



Risk assessment and prevention of environmental incidents We identified environmental factors in production and operation management activities and formed a list of important environmental factors. We launched evaluations of important environmental factors and developed corresponding goals, indicators and management plans. In 2024, we formulated **40** environmental protection plans and implemented monthly tracking inspections, dynamic analyses and closed-loop control.



Response to emergent environmental incidents

We formulated the *Emergency Plan for Emergent Environmental Incidents*, strengthened environmental risk prevention, and conducted emergency drills.

1.2

# Combating Climate Change

We deeply fulfilled the national strategic carbon peaking and carbon neutrality goals and followed international conventions such as *The United Nations Framework Convention on Climate Change* (UNFCCC) and the *Paris Convention*. We built a climate change response system by referring to the requirements for climate-related information disclosure in the *Self-Regulatory Guidelines No. 17 for Companies Listed on Shenzhen Stock Exchange - Sustainability Report (for Trial Implementation) and the <i>Self-Regulatory Guidelines No. 3 for Companies Listed on Shenzhen Stock Exchange - Preparation of Sustainability Reports*, and actively responded to the opportunities and challenges brought by climate change.

#### Governance



Approve the Company's strategies and goals for combating climate change, and supervise the implementation of measures related to tackling climate change in the Company's development plan



Strategy

Assist the Board of Directors in top-level design of strategic planning related to climate change, and assist the Board of Directors in supervising, assessing and addressing policies, measures and performance goals related to sustainable development, including climate change



Management

Integrate climate change related policies into the daily operations of the Company, evaluate, manage and supervise the implementation of climate change agenda, and promote the implementation of decision-making matters



Each department

Identify, plan and implement specific implementation plans for addressing climate change risks, set relevant indicators and goals, and submit them to the Company's decision-makers for approval

#### **Strategy**

# Analysis of climate change adaptability

Based on a comprehensive consideration of the economic and social environment, business nature, geographical location and other factors, the Company has selected low-emission scenario (RCP2.6) and high-emission scenario (RCP8.5)<sup>2</sup> under different climate scenario assumptions to analyze climate change adaptability.

Main factor	Specific factor	Low-emission scenario (RCP2.6)	High-emission scenario (RCP8.5)		
	Average temperature	By 2100, the global average temperature will rise by 1.8° C.	By 2100, the global average temperature will rise by 4.4° C.		
	Sea-level rise	By 2100, the global average sea level will rise by 0.26 to 0.53 m.	By 2100, the global average sea level will rise by 0.63 to 1.01 m.		
Physical factor	Precipitation	The change in precipitation patterns is relatively small, with some areas experiencing an increase in precipitation and some areas experiencing a decrease.	The precipitation pattern undergoes significant changes, with most regions around the world affected by droughts and floods, and the risk of droughts and floods increase significantly.		
	Extreme weather	The frequency and intensity of extreme weather events increase, but the magnitude is relatively small and the impact is relatively controllable.	The frequency and intensity of extreme weather events increase significantly, with more severe impacts.		
	Climate-related policy	Emission reduction policies are strictly implemented around the world, and most countries and regions propose and actively promote carbon neutrality plans.	Some countries and regions fail to strictly implement carbon neutrality plans, and the implementation of international climate conventions encounter significant obstacles.		
र्रे	Domestic energy structure	The energy structure undergoes the low-carbon transformation, with a significant increase in the proportion of renewable energy such as wind and solar power, which will have an impact on the traditional thermal power industry.	The energy structure is still dominated by fossil fuels, and the proportion of non-fossil fuels in primary energy consumption in China remains the same as it is currently.		
Transformation factor	Domestic greenhouse gas emission	By 2030, the carbon dioxide emissions per unit of GDP will decrease by more than 65% compared with that in 2005, achieving the goal of peaking carbon emissions.	From 2030 onwards, domestic greenhouse gas emissions will continue to rise.		
	Domestic carbon trading price	The carbon trading price will rise to several times the current price.	The carbon trading price will remain basically the same as the current price.		
	Low-carbon technologies	The demand for low-carbon technologies increase.	The demand for low-carbon technologies decrease.		

<sup>2</sup> Refer to the sixth climate assessment report - Synthesis Report for Climate Change 2023 of the Intergovernmental Panel on Climate Change (IPCC) of the United Nations. RCP8.5 indicates that by the end of this century, global carbon dioxide concentrations will be 3-4 times higher than that during the Industrial Revolution. RCP2.6 indicates that countries around the world are working together to actively address climate change, and that by the end of this century, carbon emissions will be negative.

# Identification of climate risks

We actively identified climate risks and opportunities, and determined the intensity and time frame of their impact on the Company's assets and operations. In this case, we used a "low - medium low - medium - medium high - high" grading system to measure the impact degree of physical risks, and a "low - medium - high" grading system to measure the impact intensity of transformation risks and opportunities.

#### List of physical risks related to climate change

Risk category	Risk dimension	Risk name	Financial impact	Climate scenario	Impact cycle	Impact intensity	Responding strategy
Acute physical	physical side and Droug	Drought	<ul> <li>Result in a decrease in water inflow and a decrease in hydropower revenue</li> <li>Affect the daily water consumption of thermal power generation, reduce operational efficiency, and thus lower the revenue of thermal power plants</li> </ul>	RCP2.6	Short- term	Medium low	■ Timely pay attention to the drought in the river basin where the hydropower station is located; develop emergency plans to maintain the safety storage of the reservoir; strengthen cooperation with hydrological, meteorological and engineering construction companies; optimize reservoir water level regulation;
risk s	side			RCP8.5	Long- term	Medium	implement measures for saving water and increasing power generation  Develop new technologies to reduce water consumption of thermal power plants and improve water resource utilization efficiency
Chronic	side and	Water resources shortage	<ul> <li>Lead to the suspension of investment projects in hydropower, pumped storage and thermal power plants or decline in their returns</li> </ul>	RCP2.6	Short- term	Low	<ul> <li>Conduct a thorough investigation of water resources before investments made in a project; avoid areas with</li> </ul>
physical operation- risk side	operation- side			RCP8.5	Long- term	Medium low	water scarcity as much as possible at the time of selection of a project site; adopt water-saving measures; promote the recycling of water resources
Acute	Asset- side and	and temperature ion- and heat	<ul> <li>Reduce operational efficiency, and increase operational and labor costs</li> </ul>	RCP2.6	Short- term	Medium	<ul> <li>Pay attention to meteorological orange and red warnings</li> <li>Develop heatstroke prevention and cooling measures, and carry out</li> </ul>
physical operation risk side	operation- side			RCP8.5	Long- term	Medium	emergency management from such aspects as adjusting work hours, preparing emergency supplies, and strengthening personnel protection
Acute physical	Asset- side and Flood	<ul> <li>Affect the construction project schedule and facility safety</li> <li>Affect coal transportation in thermal power plants, and thereby reduce revenue of</li> </ul>	RCP2.6	Short- term	Medium	<ul> <li>Strengthen the science-based operation of reservoirs for flood control, reasonably set the target of water-level drawdown before the flood season, and coordinate the</li> </ul>	
risk operati	operation- side	peration-	<ul> <li>Cause spilled water and affect the power generation of hydropower stations</li> </ul>	RCP8.5	Long- term	Medium	<ul> <li>In response to the flood, lower the operating water level in advance according to the forecast and make the most of the rain-flood resources</li> </ul>
Acute physical	Asset- side and	Heavy snow and other extreme weather conditions	<ul> <li>Affect the construction project schedule and facility safety</li> <li>Result in policy impacts on power generation and production scheduling</li> <li>Lead to an overload of thermal power generation capacity</li> </ul>	RCP2.6	Short- term	Low	<ul> <li>Strengthen safety risk control, conduct in-depth investigation into climate risk hazards, and regularly carry out</li> </ul>
risk op	operation- side			RCP8.5	Long- term	Medium low	emergency training, early warning and drills for natural disasters

#### List of transformation risks and opportunities related to climate change

Category of risks or opportunities	Dimension	Designation	Financial impact	Impact cycle	Impact intensity	Responding strategy
Risk and opportunity related to policies and laws	Operation- side	Climate policy	■ The country puts forward higher requirements for greenhouse gas emissions from enterprises, which will increase management costs	Medium- and long term	Low	Pay attention to the update of policies related to climate change and market changes in the energy industry, adjust strategic planning in a timely manner, and accelerate the layout of clean thermal power
Risk and opportunity related to policies and laws	Operation- side	Rise in carbon market prices and tightening of carbon quotas	<ul> <li>Increase the operating costs of thermal power</li> <li>Increase the revenue of carbon trading business</li> </ul>	Medium- and long term	Low	<ul> <li>Strengthen the green power development and green certificate trading, promote energy conservation and consumption reduction, and reduce carbon emissions</li> <li>Actively participate in the carbon trading market; accelerate the reserve and development of carbon emission reduction projects; perform the contracts in the carbon market; take multiple measures to reduce performance costs</li> <li>Deepen strategic cooperation and capital operation, and expand carbon trading business</li> </ul>
Risk and opportunity related to policies and laws	Operation- side	Stricter requirements for information disclosure	■ The regulatory and mandatory disclosure of climate-related financial information may result in poor quality information due to a lack of historical data	Short- term	Medium	<ul> <li>Incorporate climate risks into ESG management; timely disclose relevant data; strengthen the Company's ESG digitization and management; improve the quality of relevant data information disclosure</li> </ul>
Market risk and opportunity	Asset- side and operation- side	Rising financing threshold brought by green finance	<ul> <li>Increase the financing costs of thermal power enterprises</li> <li>Reduce the financing costs of green and low-carbon industries</li> </ul>	Medium- and long term	Low	<ul> <li>Strengthen the management of controllable costs and enhance the ability for the continuous development of business</li> <li>Strengthen the layout of clean energy and increase the proportion of clean energy</li> <li>Consolidate and expand new businesses such as virtual power plants new type of energy storage, integrated smart energy, and low-carbon (zero-carbon) industrial parks</li> </ul>
Market risk and opportunity	Operation- side	Rise in the prices of coal and natural gas	■ The supply of high-quality coal and natural gas is tight, with high and volatile prices, resulting in an increase in product costs.	Medium- and long term	Medium	<ul> <li>Continuously strengthen market analyses and assessments, maintain communication and coordination with relevant regulatory authorities and upstream suppliers, and timely grasp and actively respond to market changes</li> <li>Strengthen the research on policies related to coal price and electricity price linkage, natural gas price and electricity price linkage, etc., and optimize production and operation strategies in a targeted manner</li> <li>Strengthen the signing and performance of medium and long-term contracts, lock in gains, and reduce risks</li> </ul>



Category of risks or opportunities	Dimension	Designation	Financial impact	Impact cycle	Impact intensity	Responding strategy
Market risk and opportunity	Operation- side and product- side	Risk of market- based trading of electricity quantity and electricity prices	■ The water inflow for hydropower generation and coal prices are difficult to predict due to climate change and policy impacts. So there is a downward risk in market-based electricity prices, which affects returns.	Medium- and long term	Medium	<ul> <li>Strengthen communication and coordination with energy authorities, power grid companies, and market entities</li> <li>Strengthen market research and policy analysis, and formulate marketing strategies in a science-based way</li> <li>Strengthen the development and application of auxiliary decision-making software for electricity trading</li> <li>Strive to acquire and maintain high-quality customers, and ensure stable electricity quantity and electricity prices</li> </ul>
Technical risk and opportunity	Operation- side and product- side	Changes in low-carbon renewable energy technologies and market demands	<ul> <li>The proportion of renewable energy applications gradually increases, coal consumption decreases, and operating revenue drops off</li> <li>There is a need to keep up with the development of new technologies, continuously invest in technological reserves, and increase technological costs</li> <li>The transition to lower-emission products, technologies and services requires additional costs</li> </ul>	Medium- and long term	Medium	<ul> <li>Promote the R&amp;D and innovation of energy-saving and consumption-reducing technologies, and strengthen the layout of integrated energy projects</li> <li>Increase efforts in the R&amp;D of innovative technologies and strategic layout in the energy industry</li> </ul>
Reputation risk and opportunity	Operation- side	Requirements of stakeholders	■ If there are behaviors that are detrimental to the environment and climate change or relatively outdated response measures, it may affect the Company's reputation, cause loss of investors and customers, and ultimately affect the Company's performance.	Long- term	Low	<ul> <li>Actively communicate and exchange with stakeholders on combating climate change, strengthen information disclosure, and maintain a good corporate image</li> </ul>

## Impact, risk, and opportunity management

For more practices and achievements in "Special Topic II" of this Report.

**Environmental** rights trading

We incorporated climate risks into our comprehensive risk management system, assessed the potential financial impacts of risks and opportunities from all aspects, and proposed response measures. By optimizing the energy structure and promoting R&D of clean technologies, we effectively reduced the adverse effects of climate change. We actively seized the opportunities brought by climate action, put great efforts to develop renewable energy sources and promoted innovation in green technology and combating climate change, please refer to cooperation in green finance, thus contributing to realization of the state' carbon peaking and carbon neutrality goals.

> In December 2024, our affiliated enterprise, Xiangyang Yicheng Power Generation Company conducted transactions through the Hubei Environmental Resource Trading Center:

Sulfur dioxide emission rights purchased

Nitrogen oxide emission rights

**870.98** tons

**1,298.66** tons

RMB **8.6698** million





The affiliated thermal power enterprise has completed the quota settlement for the third performance period of the national carbon market in 2023, achieving 100% performance in 2023.

We strengthened the green power development and green certificate trading. In 2024, 3.8 million green certificates were issued and 1.95 million green certificates were traded, a new high in transaction scale. We actively participated in the "electricity-carbon-finance" collaborative green electricity trading in Hubei Province and conventional green power trading of 217 GWh.

In 2024



#### Green building renovation

The Research on the Technology Application and Promotion



#### **Green office**

The Energy Building where the company headquarters the public areas of the Energy Building and accurately set the



#### Green public welfare activities

neutrality, fully demonstrating its contribution to carbon neutrality.



#### Green finance



自愿注销证书

# **Indicators and Goals**

#### Greenhouse gas emissions

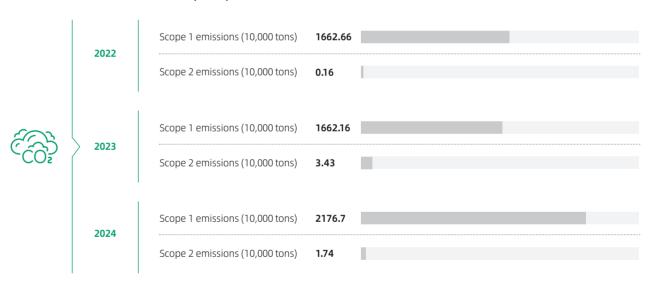
The direct greenhouse gas emissions of the Company are mainly generated by thermal power generation facilities. All our three thermal power plants, namely Ezhou Power Plant, Chuxing Power Plant and Donghu Gas Turbine Power Plant, have completed their quota settlement in 2023.

Our clean energy power generation

17.522 TWh An increase of 10.82%

Equivalent to reducing emissions of 14.3856 million tons of carbon dioxide 1,349.19 tons of sulphur dioxide **2,190.25** tons of nitrogen oxide

#### Carbon dioxide emissions from thermal power plants<sup>4</sup>



#### Goals of climate action in 2025

In 2025, we plan to add **345.4** MW installed capacity of renewable energy and continue to promote the development of "Two New" businesses. We plan to complete the construction of the low-carbon (zero-carbon) industrial park demonstration project of Wuhan Asia-Europe Logistics Park, and start construction of 3 low-carbon (zero-carbon) industrial park projects including Huazhong Laser. In addition, we have plans to achieve over 1 GW of aggregated capacity of virtual power plants, and further expand carbon trading such as green certificates and green electricity, as well as carbon footprint management.

<sup>&</sup>lt;sup>3</sup>According to the Annual Development Report on China's Electric Power Industry 2024 of China Electricity Council, the carbon dioxide emission per unit of thermal power generation in China is about 821 g/kWh, and the emissions of smoke, sulfur dioxide and nitrogen oxides per unit of thermal power generation are 14 mg/kWh, 77 mg/kWh and 125 mg/kWh, respectively.

Facilities issued by the Ministry of Ecology and Environment, the accounting of carbon emissions for 2024 needs to be completed around June 2025.

# **Pollutant Emissions and Waste Disposal**

# Wastewater **Treatment**

Compliance rate of wastewater discharge

#### 100%

Production wastewater and domestic sewage from Ezhou Power Plant, Yicheng Power Plant and Chuxing Power Plant

#### **Zero** emission



2024

We have strictly abided by laws and regulations such as the Law of the People's Republic of China on

Prevention and Control of Water Pollution. Our three coal-fired power plants, namely Ezhou Power

Plant, Yicheng Power Plant and Chuxing Power Plant, have set up the domestic sewage treatment

system, industrial wastewater treatment station, coal-containing wastewater treatment station and

desulfurization wastewater treatment system according to the requirements of "diversion of rain

and sewage and diversion of clear and sewage water". They carried out differentiated treatment of

various types of industrial wastewater and domestic sewage to ensure effective reuse. The wastewater

from Donghu Gas Turbine Power Plant has met the third-level standard of the Integrated Wastewater

Discharge Standard (GB8976-1996) before being discharged into the municipal pipeline network.

It was further treated by the sewage treatment plant instead of being directly discharged into the

Wastewater discharge intensity (kg/kWh)

0.15

2022

0.22

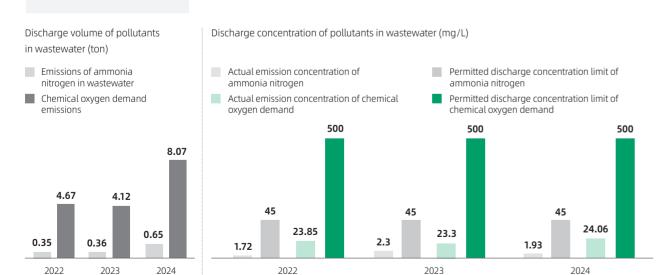
2023

0.34

2024



external environment.



<sup>&</sup>lt;sup>5</sup> During the rainstorm in June 2024, rainwater overflew to the front end of the ultrasonic open channel flowmeter in the Parshall flume of the sewage drainage pipeline, resulting in a large sewage volume of the sewage flowmeter. The flowmeter fence has been raised and covered with a canopy to prevent rainwater overflow.

### **Exhaust Gas Treatment**

Waste gas management and emission reduction measures

We have strictly abided by laws and regulations such as the Law of the People's Republic of China on the Prevention and Control of Atmospheric Pollution. Our Ezhou Power Plant, Yicheng Power Plant, Donghu Gas Turbine Power Plant and Chuxing Power Plant have all installed the Continuous Emission Monitoring System (CEMS). In 2024, the Generating Unit No. 1 of the Ezhou Power Plant Phase I completed the low-nitrogen combustion transformation, and the emission concentration of flue gas pollutants from our thermal power generating units all met the requirements of ultra-low emission limits.

In 2024



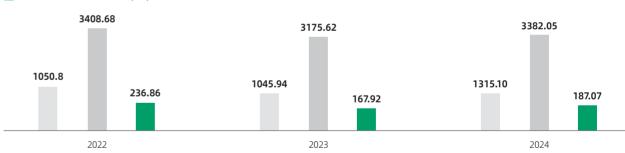
Operation rates of dust removal and desulfurization facilities in Ezhou Power Plant, Yicheng Power Plant and Chuxing Power Plant 100%

#### Emission volume of pollutants in waste gas



Nitrogen oxide emissions (ton)

Smoke and dust emissions (ton)

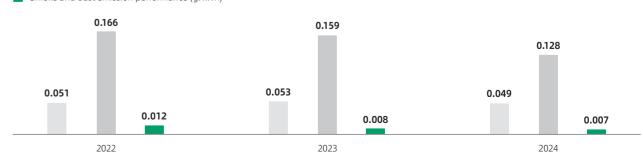




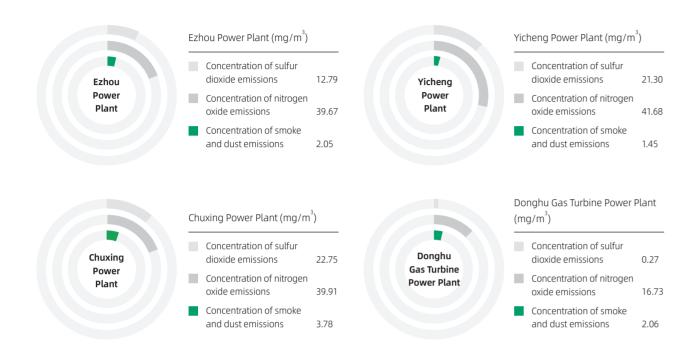


Nitrogen oxide emission performance (g/kWh)

Smoke and dust emission performance (g/kWh)



# Emission concentration of pollutants in waste gas<sup>6</sup>



### **Solid Waste Disposal**

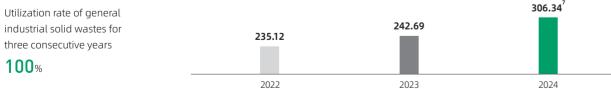
We have strictly abided by laws and regulations such as the Law of the People's Republic of China on the Prevention and Control of Environment Pollution by Solid Wastes, and actively promoted the recycling of various types of solid wastes. Our affiliated thermal power enterprises have followed the principles of "volume reduction, resource utilization and harmless disposal", implemented measures for sorted collection, disposal and comprehensive utilization of various types of solid wastes, and met the requirements for compliant disposal of industrial solid wastes.

#### Disposal of general solid wastes

In accordance with the requirements of laws and regulations, we have classified, collected, stored and transferred industrial wastes for disposal. Our affiliated thermal power plants have strengthened the comprehensive utilization of major solid wastes. Besides, we have established emergency storage equipment and facilities for temporary stacking and storage of by-products during the off-season to avoid environmental pollution.

2024

#### Generation volume of general industrial solid wastes (10,000 tons)



industrial solid wastes for three consecutive years

#### Environmental

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Mutual Benefit and Shared Growth

#### Governance

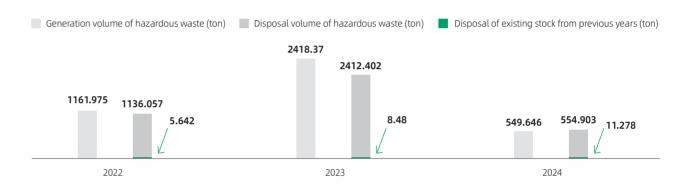
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#### Management and disposal of hazardous wastes

Our affiliated production and construction companies have established sound hazardous waste management systems, strengthened supervision and management of the entire waste treatment process and carried out standardized collection and storage. They have also entrusted qualified third parties for reasonable disposal.

#### Hazardous waste disposal rate





#### Other pollutants

Our affiliated production and construction companies have increased their efforts in noise control, and their noise emissions have met the emission limits of the Emission Standard for Industrial Enterprises Noise at Boundary.



<sup>&</sup>lt;sup>6</sup> Ezhou Power Plant, Yicheng Power Plant and Chuxing Power Plant implemented ultra-low emission standards, with emission concentrations of smoke and dust, sulfur dioxide and nitrogen oxides not exceeding 10 mg/m³, 35 mg/m³ and 50 mg/m³, respectively. Donghu Gas Turbine Power Plant adopted the special emission limits of the Emission Standards of Air Pollutants for Thermal Power Plants (GB13223-2011), with emission concentrations of dust, sulfur dioxide and nitrogen oxides not exceeding 5 mg/m³, 35 mg/m³ and 50 mg/m³, respectively.

Thermal power generation increased by 33% year-on-year, resulting in a corresponding increase in solid wastes generated.

1.4

# **Ecosystem and Biodiversity Protection**

# Biodiversity protection management

Biodiversity protection measures

We have strictly abided by laws and regulations such as the *Environmental Protection Law of the People's Republic of China*, integrated the requirements of biodiversity protection into the entire process of project development, construction, and daily production and operation, and avoided production and operation activities within the scope of red line for ecological conservation. We have also conducted in-depth surveys and assessments of biodiversity, grasped the current status and trends of biodiversity within the production, construction and operation scope in all respects, and provided a science-based basis for formulating targeted protection measures.

#### Aquatic life protection of Jiangpinghe Hydropower Station

In order to reduce the adverse impact of hydropower station operation on fish in the river basin, the Jiangpinghe Hydropower Station owned by Loushui Hydropower Company, our affiliated company, built and put into operation a fish breeding station in 2021 to protect and compensate for fish resources in the Loushui River Basin.



# Ex-situ conservation and breeding of endemic and rare plants in Luotian Pingtanyuan Pumped Storage Power Station

Pingtanyuan Pumped Storage Company, one of our affiliated companies, has prepared the *Protection Plan for Ancient and Famous Trees in the Project Construction Affected Area of Luotian Pingtanyuan Pumped Storage Power Station in Hubei Province*, and carried out transplantation and protection of ancient trees. According to the *List of National Key Protected Wild Plants, List of National Precious Tree Species* and *List of Rare and Endangered Plants in China*, the company transplanted Cymbidium faberi Rolfe within the red line of the upper reservoir and established a conservation garden.





#### "Photovoltaic development + ecological restoration" in Phase I of the Northern Shaanxi-Hubei ±800 kV UHVDC transmission project

2.1 GW photovoltaic base of Phase I of the Northern Shaanxi-Hubei ±800 kV UHVDC transmission project is located in Yulin City, Shaanxi Province, adjacent to the Maowusu Sandland. It adopts the "photovoltaic power +ecological restoration" mode, with photovoltaic power generation on the panel and ecological restoration under the panel. During the project construction process, it strictly implemented the requirements of "surface control, no damage of the ground surface, ecological restoration and supervision", planted Pinus sylvestris, Sabina vulgaris and other plants, and completed the grass square pavement, achieving the synergy of economic and ecological benefits.

#### Animal and plant rescue plan of Chaglla Hydropower Station

Chaglla Hydropower Station, one of our affiliated enterprises, implemented the animal and plant rescue plan and opened up a nursery garden in the living area for employees. To be specific, it transplanted the protected plants to the nursery garden with artificially regulated temperature and humidity, cultivated them until they were lush enough, and then returned them to the original place or the forest. In addition, it turned the floating wastes from reservoir into treasure, sorted and recycled them for use as plant fertilizers in the nursery garden. As of now, the nursery garden has been planted with over 9,000 orchids in 160 species and 26 species of local trees. The hydropower station and local authorities jointly planted 190 hectares of trees in the mountainous and grassy jungle areas of Huanuco, continuously maintaining and protecting the existing artificial forest. The hydropower station conducted biodiversity monitoring every year, discovered 7 new species, and promoted them through publications. At the 5<sup>th</sup> National Water Congress of Peru, Chaglla Hydropower Station Project Company, as an advanced model of environmental protection, made a speech and received high recognition from the organizers and attendees.



# 1.5

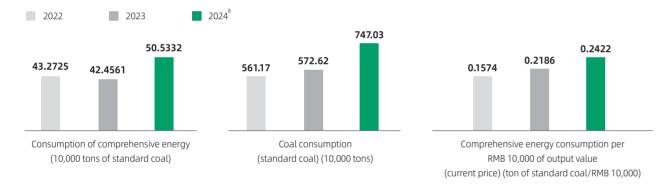
# **Resource Utilization and Circular Economy**

#### **Utilization of Energy**

For details on renewable energy projects, please refer to "Special Topic II" of this Report.

We strictly abided by laws and regulations such as the Law of the People's Republic of China on the Conservation of Energy Resources, and issued the Measures for Energy Saving and Emission Reduction Monitoring and Statistical Management. We standardized the statistical ledger for energy conservation and carbon reduction, incorporated the completion of energy conservation and carbon reduction into the annual performance assessment, and integrated energy conservation and emission reduction requirements into the entire process of electricity production.

We actively promoted the development and construction of renewable energy projects including solar and wind power, optimized our business structure, and achieved the proportion of installed capacity of clean energy at **64**%.



Generating Unit No. 2 of Donghu Gas Turbine Power Plant has been awarded the 4A level Outstanding Generating Unit by China Electricity Council



The intelligent combustion project of flexible fuel for boilers of Ezhou Power Plant won the special award from China Energy Conservation Association



<sup>&</sup>lt;sup>8</sup> Thermal power is a high-energy-consuming industry. Yicheng Power Plant operated for a full year in 2024, resulting in an increase in comprehensive energy consumption per RMB 10,000 of output value.

### Utilization of Water Resources

Optimal operation of reservoirs

We strictly abided by laws and regulations such as the *Water Law of the People's Republic of China* and the *Administrative Measures for Water Withdrawal Permits*. We took into full account water resources and carrying capacity of water environment during the production and construction process, optimized production processes and strengthened water monitoring. We also focused on recycling, reduced water loss, and continuously improved utilization efficiency of water resources.

We promoted the continuous optimization of reservoir operation strategies by our hydropower stations. According to the operation strategy of major reservoirs and arrangements for the operation mode of the generating units during the flood season in 2024, we made advanced planning for the water level in key periods such as the end of the month and before the flood season, coordinated the medium and short-term scheduling of reservoir water level and real-time scheduling of unit operation modes, and achieved the optimal utilization of water head for power generation and water volume in reservoirs.

In 2024



Accumulated increased electricity generation from water conservation of three cascade hydropower plants in the Qingjiang river basin

**684** GWh

Hydropower utilization improvement rate

9.0%

Hydropower utilization improvement rates of the three hydropower stations

Shuibuya **8.4**%

Geheyan 6.9

Gaobazhou 18.3%

In the national assessment of operation and management indicators for conventional hydropower stations, the Generating Unit No. 4 of Geheyan Hydropower Station have been awarded the **4A level**Outstanding Generating Unit and **3A level Outstanding Generating Unit**, respectively. The four generating units of Geheyan Hydropower Station have been awarded the **best generating units in terms of the hydropower utilization improvement rate**.

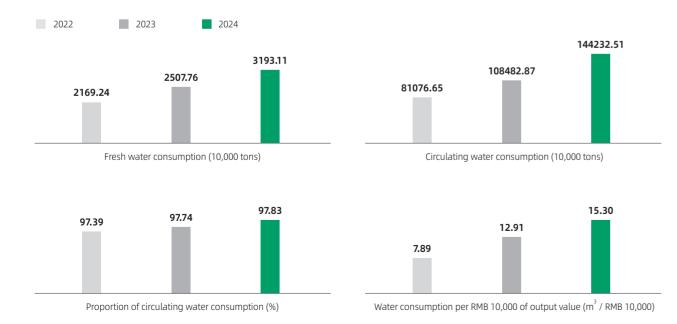






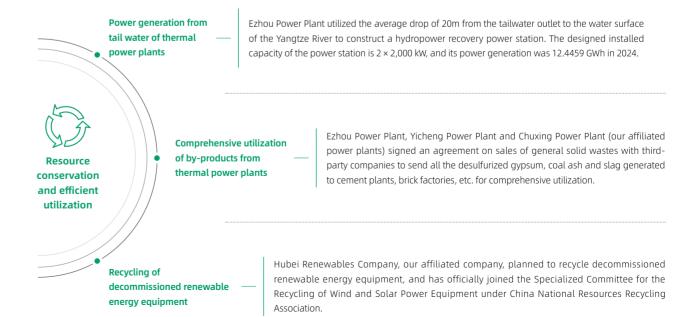
# Water management in thermal power plants

The cooling water volume of the condensers in our affiliated thermal power plants accounted for more than 98% of the water intake of the thermal power plants. Newly built generating units generally adopted the cooling method by cooling towers. The Phase III of Ezhou Power Plant, Donghu Gas Turbine Power Plant, Yicheng Power Plant and Jiangling Power Plant under construction all adopted the water circulation mode of cooling tower to cool the units.



# Circular Economy

We actively implemented the extended production responsibility system, adopted circular economy models applicable to the energy industry, and strengthened the recycling and reuse of waste to achieve the goals of resource utilization and recycling of wastes and emission reduction. We also increased the proportion of renewable resource utilization, reduced dependence on natural resources, and minimized the impact of waste on the environment.





#### Practice of fulfilling responsibilities

We have always regarded "improving people's well-being and giving back to society" as our core values and fully upheld our social responsibilities as a central state-owned enterprise. By promoting all-round rural revitalization, establishing inclusive and collaborative communities, protecting employee's rights and interests, and safeguarding supply chain security, we have promoted the creation of a trustworthy, open, cooperative, and mutually beneficial value and ecological chains, ensuring that the benefits of high-quality development are shared by all stakeholders.

#### Contribution to the U.N. Sustainable Development Goals (SDGs)





















# 2.1

### **Employees**

# **Employee Recruitment** and **Employment**

#### **Recruitment policy**

We have strictly complied with the Labor Law of the People's Republic of China, the Labor Contract Law of the People's Republic of China, and other relevant laws and regulations. We have conscientiously implemented the Guidelines for Labor Employment Compliance and the Labor Contract Management Measures, and followed standardized procedures to recruit employees and provided fair, impartial, and transparent employment opportunities for all candidates. Supervisory personnel have been involved throughout the recruitment process to ensure rigorous oversight.

### **Employee protection**

We are committed to ensuring equal treatment for all employees. Clear employment conditions have been established, and we have not been engaged in child labor, forced labor, or any form of compulsory labor. Our recruitment, compensation, and promotions are not influenced by religion, race, nationality, gender, marital status, or other factors. We have signed labor contracts with all employees, maintaining a 100% contract signing rate. All our employees are employed through formal channels. We have no flexible or informal employment arrangement, which ensures full protection of employees' lawful rights and interests.

#### **Employment promotion**

We have adopted a dual recruitment approach that combines campus recruitment and social recruitment. Based on key project development needs, we have intensified our efforts to recruit talents in high-demand disciplines. Each year, 5% of our recruitment quota is reserved for veterans. In 2024, we hired 266 recent graduates, 39 experienced professionals, and 6 demobilized military officers. Through the development of major projects such as Jiangling Power Plant, Luotian Pingtanyuan Pumped Storage Project, and Changyang Qingjiang Pumped Storage Project, we have created employment opportunities for the broader community. Our overseas subsidiaries have primarily employed local staff, with local employees accounting for over 90% of the workforce.



# **Gender composition** Age composition Male 35 years old and below ■ 36-45 years old Female 56 years old and above 46-55 years old 196 1 047 1,086 2,286 1.061 **Education degree** Professional title evaluation Master's degree or above Bachelor's degree Senior Professional Title Associate Senior Professional Title Associate degree or below Medium Professional Title Junior Professional Title or below 35 373 1,304 1,308 2,913 2,738

#### **Employee Compensation and Benefits**



The Company and its subsidiaries at all levels ensured the timely distribution of monthly salaries and annual performance bonuses in accordance with relevant requirements. The wage standards met or exceeded the local statutory minimum wage, and employees' rights to labor compensation were protected by law. Compensation allocation was weighted toward key business areas, critical positions, and challenging front-line roles to give full play to the guiding role of salary incentives. An equity incentive plan was implemented for executives, core managers, and key technical staff in line with listed company policies, aiming to ensure the stability and motivation of core teams while driving the growth of corporate value.

# Working hours and leave

In accordance with the *Labor Law of the People's Republic of China* regarding working hours, rest and leave, the Company provided compensatory time off or overtime pay for employees who worked beyond regular hours due to business needs. *Employee Attendance and Leave Management Measures* were established, and entitlements to paid annual leave, marriage and bereavement leave, home leave, maternity and paternity leave, parental care leave, and childcare leave were strictly enforced.

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#### Social

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#### Governance

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# Employee benefits and social security

The Company made full and lawful contributions on behalf of all employees to basic pension insurance, basic medical insurance, unemployment insurance, maternity insurance, work injury insurance, and the housing provident fund. It established an enterprise annuity plan and provided supplemental medical insurance coverage.

Social insurance coverage rate for employees

100%



Labor disputes

n

### Democratic management



The Company convened its third session of the third Staff and Workers' Representative Congress and guided all its subsidiaries in standardizing their own congresses, achieving a 100% organizational system coverage rate for employee congresses among all units.



Following the principles of "standardized review, proper referral, effective handling, and timely feedback", the Company has strengthened high-quality processing of employee proposals from the Staff and Workers' Representative Congress. In 2024, a total of 23 proposals were submitted, 9 of which were formally filed and processed, achieving a 100% completion rate and 100% satisfaction rate. Both the number and quality of proposals reached a record high.



All subsidiaries of the Company have actively disclosed their corporate affairs through online platforms, bulletin boards, and various types of meetings, ensuring the orderly disclosure of key issues such as major reforms, awards and recognition, personnel appointments, and budget usage. These efforts have effectively safeguarded employees' rights to know, participate, express, and supervise.



The Company carried out the re-election of employee supervisors and nominated 2 employee representatives to serve on the new term of its Board of Supervisors.



The Company and employee representatives renewed the "1+4" Collective Contract through equal and mutual consultation, and signed a new Special Collective Contract on Position-Based Salary Grades.

### **Career Development and Training**

#### Position system

# Career development

Company-wide competition rate for managerial positions

92.86%

#### Staff training

Carefully organizing employee education and training programs

In line with the management principles of being "strategy-driven and value-oriented, standardized and transparent, scientifically structured and reasonable, positively motivating and dynamically adaptable, respectful of history and forward-looking", the Company has established a structured position and ranking system for managers.

The Company has upheld the principles of "vertical grading, horizontal categorization, standardized management, and smooth mobility" to build a multidimensional talent development framework. It has continued to strengthen the merit-based selection process, prioritizing the promotion of employees who have demonstrated outstanding performance in critical assignments and those who have shown dedication in challenging locations. A pre-assessment mechanism has been implemented for competitive selection processes, with a company-wide competition rate for managerial positions reaching 92.86%. In addition, mechanisms for skill level assessments and professional title evaluations have been established, providing employees with clear career advancement opportunities and enhancing their sense of professional fulfillment and belonging.

We have formulated the *Key Training Priorities for Employees from 2024 to 2027*. Guided by the principles of "serving the overall strategy, holding hierarchical and categorized training, emphasizing both ethics and skills, and maintaining integrity while pursuing innovation", we have continuously improved the quality and effectiveness of employee education and training. Training sessions have been offered to all employees to improve their skills and knowledge base. Besides, specialized training programs have been thoughtfully designed for mid- and senior-level managers, young talents, power market professionals, and technological innovation personnel. Selected employees have been sent to companies such as Hikvision, Geely New Energy, and CGN for exchange and study. We have also hosted technical skills training for two job categories, i.e., centralized control operators for power generation and hydraulic monitoring technicians. In 2024, the average training time per employee reached 106.2 hours. To be specific, mid- and senior-level managers received over 200 hours of training per person, while other employees received an average of 101.4 hours.

In 2024



Number of employees trained

66,000



Actively organizing and

participating in various

skill competitions

RMB **8.365.000** 



Training coverage rate for managers and employees

100%



dispatchers. A total of 8 awards were won in these events.

Overall training satisfaction rate

We erganized its

We organized its 9<sup>th</sup> Employee Vocational Skills Competition and Master-Apprentice Training Session, covering 6 key technical roles, namely, hydropower operation dispatcher, centralized control operator for thermal power, photovoltaic power operation and maintenance dispatcher, natural gas transmission technician, gas pipeline operation technician, and ship loader maintenance technician. The event attracted more than 150 participants, and 18 individuals were awarded the title of HBEG Technical Expert. In addition, over 40 skilled employees were selected to participate in skills competitions, such as national competitions for photovoltaic power station O&M personnel, centralized control operators for power generation, hydropower operation dispatchers, electrical maintenance electricians, and provincial competitions for wind power operation and maintenance

### **Honor obtained**

The Labour Union for Power Generation Department of Ezhou Power Generation Company was recognized as a National Model Workers' Home. The Zaoyang Xinglong PV Project Team of Hubei Renewables Company was awarded the title of National Workers Pioneer.

The Fourth Shift Team of the Power Generation Department at Ezhou Power Generation Company was honored as National Workers Pioneer of Hubei Province.

Hanjiang River Energy Company received the National May Day Labor Award.

Gao Meng of Qingjiang Company won the Excellence Award in the electrician category at the 18<sup>th</sup> "Revitalization Cup"

National Youth Vocational Skills Competition.

The full-length report titled *Qingjiang Steps out of Qingjiang Company* received the 12<sup>th</sup> Qu Yuan Literary Award of Hubei

Gao Meng of Qingjiang Company earned the Bronze Medal in the electrician category at the Hubei "Craftsman Cup" Youth Vocational Skills Competition. Ding Zhiguo of Ezhou Power Generation Company received the Silver Medal in the electrician category at the Hubei "Craftsman Cup" Youth Vocational Skills Competition.

Zhou Yijun of Hubei Renewables Company won the Third Prize (Individual) in the PV O&M dispatcher category at the 15<sup>th</sup> National Vocational Skills Competition of the Power Industry.

Ai Fupeng and Liu Tang of Xiangyang Yicheng Power Generation Company won the Third Prize (Team) in the centralized control operator for power generation category at the 15<sup>th</sup> National Vocational Skills Competition of the Power Industry.

Liang Wenyue and Wang Yuanhao of Qingjiang Company won the Third Place (Team) in the 2024 National Hydropower Operation Dispatcher Skills Championship of the Power Industry.

Zhang Aihua and Zhao Zhengde of Hubei Renewables Company ranked Fifth (Team) in the wind power O&M dispatcher category at the 2024 "Hubei Craftsman Cup" Skills Competition.

# **Employee Care** and Support

We have actively advanced the "Happy Energy" initiative, focusing on addressing issues that directly affect employees' well-being and on continuously striving to meet their aspirations for a better life.

## **Building "Model Families"**

We organized the second "Model Family" selection campaign, recognizing 10 exemplary families in the company. A promotional event titled "Passing Down the Finest Family Values" was held to share inspiring family stories and promote a family culture of positivity and integrity. We also offered child care services during summer and winter vacations to help employees better balance work and family responsibilities, effectively easing their concerns at home.

# Supporting employees in need

Caring for female employees

Paying attention to the mental health of employees We established a support system combining "targeted assistance + inclusive services", ensuring full coverage for care and hardship relief recipients. A total of RMB 2.1 million of special funding was allocated for initiatives such as "Cool Summer Relief", "Winter Warmth Campaign", "Charity Shopping Support", etc. Over 3,000 instances of seasonal support, including spring maintenance, summer cooling, autumn education aid, and winter warmth, were carried out, along with over 300 "Five Must-Visit" care visits and hardship relief provided to 26 individuals (including 9 retirees).

Contributions initiative and Book Clubs activities for female employees, and women's health seminars. Free breast and cervical cancer screening services were offered for female employees, and women's health insurance was provided. We also raised the standard for women's hygiene subsidies to further protect their legitimate rights and interests. Grassroots units established "Mother-and-baby Care Rooms" based on local conditions, and new parental leave clauses were added to the collective contract to provide more comprehensive care and protection for female employees.

More than 30 events were organized, including International Women's Day celebrations, the Women's

We delivered targeted psychological support programs, hosting over 40 mental health counseling sessions that reached more than 1,800 employees. Spring and autumn travelling policies were implemented, and over 1,200 annual travel passes were purchased and distributed to employees to help them unwind and maintain emotional well-being outside of work.







## **Work Safety and Occupational Health**

## **Work Safety**

## Governance







A robust organizational structure has been established for work safety management to reinforce a long-term mechanism for work safety oversight. Our Work Safety Commission provides overall leadership on work safety-related matters, while the Quality Safety Department serves as the dedicated work safety management body. Annual work safety responsibility agreements were signed with all subsidiaries, ensuring comprehensive coverage of both production and construction units. All subsidiaries were supervised to fully implement their primary responsibilities for work safety. All employees were held accountable for work safety, with each required to sign a safety commitment. Safety inspection checklists were developed to cover all business segments, construction phases, and operational periods, and the performance of responsibilities was assessed accordingly.

We formulated 26 work safety management regulations, including the Work Safety Management Measures, Emergency Management System, Regulations on the Reporting and Investigation of Work Safety Accidents, Safety Risk Responsibility Fund Management Measures, Management Measures for All-Staff Work Safety Responsibility System, and Safety Risk Classification Control and Hazard Investigation & Rectification Measures.

## Strategy



## Pursuing strategic leadership and balancing development and safety

The principle of safe development is deeply embedded into our overall development strategy, promoting a positive cycle of high-quality development and high-level safety.



## Adhering to red lines and strengthening safety responsibility

Following the "Three Controls, Three Musts" principle, we have fully fulfilled its work safety responsibilities in all fields at all levels, ensuring work safety responsibilities are maintained throughout the entire safety management chain.



## Adhering to systematic advancement and achieving intrinsic safety

Through a three-year action plan aimed at addressing root causes, we continuously strengthen weak links and enhances civil air, technical, engineering, and management defense capabilities in all respects.



Classification	Impact description	Stakeholder	Impact scope
Positive impact (+)	<ul> <li>Strict safety management is implemented to ensure the safe and stable supply of energy and to prevent economic and social losses caused by safety incidents.</li> </ul>	<ul> <li>Government departments and regulatory agencies</li> <li>Shareholders and investors</li> </ul>	<ul><li>Upstream of the value chain</li><li>Enterprise</li></ul>
Negative impact (-)	<ul> <li>Inadequate work safety management may lead to potential safety hazards, pose risks to employees' occupational safety and health, and cause losses to business operations and local development.</li> </ul>	<ul><li>Employees</li><li>Customers</li><li>Suppliers and partners</li><li>Local communities</li></ul>	operation  Downstream of the value chain



Classification	Factor	Description	Responding strategy	Impact cycle	lmpact scope
Policy risk	Changes in policies related to work safety	<ul> <li>Failure to respond promptly to the latest national or local work safety regulations, resulting in penalties</li> <li>Delays in project approvals hinder business development.</li> </ul>	<ul> <li>Closely monitor changes in national work safety policies, and promptly adjust strategic plans and update internal management systems.</li> <li>Strengthen communication with government authorities</li> </ul>	Medium-to- long term	Operational assets
Reputation risk	Negative media coverage	<ul> <li>Safety incidents may trigger negative media coverage, damaging the Company's brand image.</li> </ul>	<ul> <li>Strengthen information disclosure and increase transparency</li> </ul>	Short-to- medium term	Operation



Classification	Factor	Description	Responding strategy	Impact cycle	Impact scope
Policy opportunity	Formulation of industry standards	<ul> <li>Participation in the formulation of industry standards in the field of work safety helps enhance the Company's influence and voice in the industry</li> </ul>	<ul> <li>Actively join the working groups for formulating industry standard and contribute to standard formulation</li> <li>Timely summarize and share the Company's safety management experience</li> </ul>	Medium-to- long term	Operation
Technological opportunity	Technical innovation	<ul> <li>Leverage digital technologies to improve the efficiency of safety management</li> </ul>	<ul> <li>Strengthen technological innovation and collaborate with leading digital technology companies</li> <li>Build intelligent safety monitoring platforms.</li> </ul>	Medium-to- long term	Operation

### Environmental

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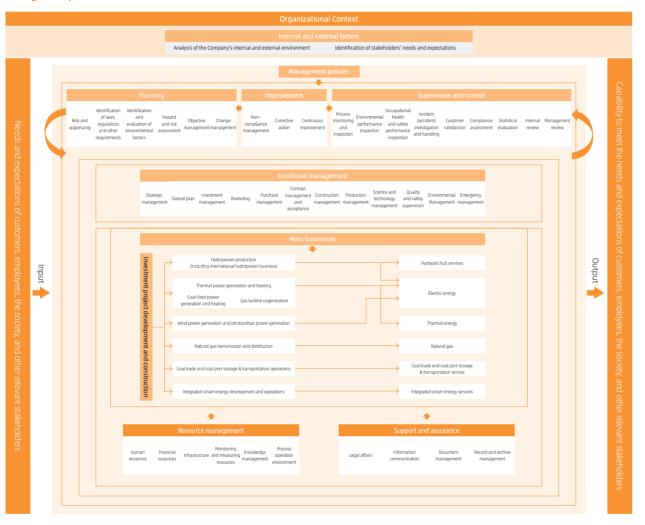
### Governance

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## Impact, risk, and opportunity management

In accordance with the Guidelines for Comprehensive Risk Management of Central SOEs and the Basic Norms for Internal Control of Enterprises along with supporting guidelines, we have conducted full-process oversight and management of products and services in line with internal business management and risk control requirements.

### **Management process**



## **Management measures**

**Emergency management** 

We revised and put on file 15 emergency response plans, including the *Comprehensive* Emergency Response Plan and the Special Emergency Response Plan for Meteorological Disasters. Besides, we provided guidance and coordination for emergency drills among various subsidiaries, with a focus on practical, scenario-based exercises. It introduced innovative activities such as live streaming and on-site observations. A total of 930 drills were conducted, with over 10,000 participants. Among these drills, 14 joint drills were carried out in collaboration with government departments at or above the county level.

Safety monitoring

We established a video surveillance monitoring mechanism for infrastructure projects. A dedicated video surveillance room was set up in our central duty office, integrating video feeds from infrastructure project units for random screen-check inspections.

We established a hierarchical safety risk control checklist and implemented tiered, classified, and specialized management strategies. We developed key safety risk control lists and corresponding control measures, effectively embedding risk awareness into grassroots teams and frontline employees.

We formulated the Annual Quality and Safety Supervision and Inspection Work Plan 2024, conducted various quality and safety inspections based on the safety inspection standards specific to each business segment, and implemented timely corrective actions.

On-time issue rectification rate for all identified problems

100%

**Education and training** 

We organized comprehensive training programs covering work safety laws and regulations, standards, rules, emergency knowledge, and response skills. We introduced innovative training methods and means to boost employee engagement and achieved full coverage in safety education and training. We also mobilized all functional departments and secondary units to participate in the online quiz of the 5<sup>th</sup> Knowledge Competition for Emergency Management Law Popularization, with over 240,000 questions answered in total, earning recognition as an "Outstanding Organization" in the competition.

We improved the safety management system for outsourced production and construction contractors. We strictly enforced qualification reviews and access controls for teams, personnel, and equipment throughout the entire construction process. Grid-based project management was enhanced, and a collaborative management framework was established, comprising functional departments, project teams, and all participating entities.

## **Indicators and goals**



## Goals in 2024 and fulfillment of the goals



To prevent any general or more serious work safety incidents (including traffic safety incidents) and cybersecurity events

## Work safety investment in 2024



Work safety investment made by production and operation units

RMB 130.02 million

Work safety investment in engineering and construction projects

RMB 81.45 million

## **Occupational health**

## Occupational health management

Number of work-related fatalities

Training sessions on occupational safety and health

463 sessions

All-employee safety training coverage

100%

### System construction

The Company identified all relevant occupational health and safety laws and regulations in all respects, and conducted compliance evaluations for each item. 100% compliance was achieved by its systems such as the Management Measures for Occupational Health and Safety Performance Monitoring and Compliance Evaluation, the Management Measures for Labor Protection Equipment, and the Operation and Monitoring Measures for Quality, Environment, Occupational Health, and Safety Management System. The Company also developed the Safety Expenses Management Measures, incorporating occupational health expenses into the annual budget.

### Risk identification

The Company conducted dynamic identification of occupational disease hazards based on the Classification Catalog of Occupational Disease Hazard Factors, with a particular focus on newly constructed, expanded, and renovated projects, as well as technological upgrades and technology introduction projects.

### Health management

The Company established occupational health records and conducted regular health checks in accordance with the Law of the People's Republic of China on Prevention and Control of Occupational Diseases, and the Technical Guidelines for Occupational Health Surveillance, with no suspected occupational diseases or contraindications identified.

### Investment in occupational health

In 2024, the Company invested RMB 9.0197 million in labor protection equipment, RMB 516,100 in occupational health checkups, and RMB 507,500 in valuations of occupational disease hazard factors. No safety incidents or issues were caused by inadequate training, improper personal protection, or insufficient safety investments.

## Occupational health training

The Company developed the Major Work Safety Education and Training Plan 2024 and organized various departments and subsidiaries to conduct occupational health and safety training, covering emergency knowledge and skills, emergency drills, dual prevention mechanisms, occupational disease prevention laws, hazard identification and evaluation, first aid for electric shock incidents, CPR, defibrillator use, fire escape, and traffic safety training.



## Occupational safety protection

## Safety risk prevention and control

## Work environment protection

Targeted protective measures were implemented for high-temperature work environments, environments with dust and harmful gases, and areas with excessive noise.

## Protection of equipment and facilities

The Company installed safety protection devices such as quardrails, safety nets, emergency stop buttons, and leakage protection devices. It also equipped work areas with fire extinguishers, fire hoses, emergency lighting, first aid kits, and stretchers, and ensured these emergency rescue devices are regularly inspected and maintained.

## Individual protection

The Company provided employees with standardcompliant personal protective equipment (PPE), including safety helmets, harnesses, protective gloves, and earplugs. For personnel engaged in specialized operations, the Company supplied professional protective gear such as air respirators and gas detection alarms.



### Safety check

The Company remained firmly focused on its annual work safety goals, prioritizing high-risk construction and production projects, hazardous operations, dangerous chemicals, and major hazard sources. It carried out a series of targeted initiatives, including the three-year action plan for addressing root causes in work safety, campaigns against "three violations" (illegal command, illegal operations, and violation of labor discipline), inspections of safety risks in metal structures, intensive safety campaigns for the winter and spring seasons, and special safety assurance actions during the "Two Sessions" and National Day. In addition, it strengthened the implementation of work safety responsibilities, refined risk control measures and maintained strict on-site safety supervision. It also ensured rigorous follow-through of measures, and promptly addressed identified issues, effectively keeping major hazard risks under control and within manageable limits.

◀ ISO45001 Occupational Health and Safety Management Systems Certification

## Social Responsibility and Contribution

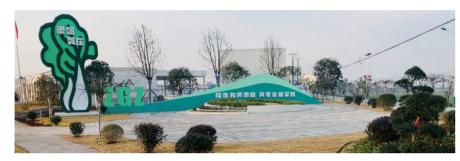
The Company has strictly complied with the Charity Law of the People's Republic of China, the Law of the People's Republic of China on Donations for Public Welfare, and other relevant laws and regulations. It has formulated the Management Measures for Fulfilling Social Responsibility Projects and developed an annual work plan for social responsibility to actively promote the implementation of social responsibility projects. In 2024, the Company implemented 19 social responsibility projects, and invested a total of RMB 10.389 million, including RMB 5.33 million in consumption support initiative for rural revitalization.

## **Promoting all-round** rural revitalization

In firm alignment with the strategic decisions of the CPC Central Committee on advancing all-round rural revitalization and consolidating the achievements of poverty alleviation, the Company has established a leadership group dedicated to poverty alleviation, held special meetings to advance paired assistance, and fully leveraged its advantages as a state-owned energy enterprise. Through project development, direct donations, and consumption support initiative for rural revitalization, it has provided strong support to the social and economic development and quality of life improvement in assisted regions.

## Promoting the development of local specialty industries

The Company leverages the role of industrial revitalization in promoting all-round rural revitalization. By supporting the construction of processing and packaging workshops and assisting in the establishment of specialized cooperatives, it has helped cultivate and expand local specialty industries according to local conditions, continuously strengthening the long-term sustainability of its assistance efforts. To be specific, in Liangju Village, Xiangzhou District, it facilitated the development of a complete vegetable production chain covering cultivation, sorting, storage, and transportation to improve the local agricultural income. In Laifeng County, it expanded the sales network of Fengtou Ginger, helping enhance the distinctive brand of the Ginger Town. In Wutai Town, Fangxian County, it supported the establishment of a planting base for traditional Chinese medicinal herb, enabling farmers to access to local employment opportunities.



## Focusing on addressing shortcomings in the living environment

In response to the public's growing expectations for a better life, the Company has focused on pressing livelihood issues and increased investments in transportation, water conservancy, and environmental improvements. Specifically, with the construction of the Changyang Qingjiang Pumped Storage Project as an opportunity, the originally planned lower reservoir tunnel was upgraded to a large-scale municipal bridge across the Qingjiang River, which would significantly improve the regional transportation infrastructure, providing convenience for people's travel. The Company also donated funds to build a supporting community service center in Zhushanzhai Village, Nanzhang County, and upgraded the potable water supply system in Luotian County to improve the quality of life for local farmers. Taking the construction of the Luotian Pingtanyuan Pumped Storage Project as another opportunity, the Company made comprehensive efforts to improve the surrounding environment, enhance cultural and recreational infrastructure, and preserve traditional settlements and historic architecture by leveraging local unique characteristics, stimulating regional vitality, and promoting the development of the tourism industry in the reservoir area.



## **Expanding the consumption** support initiative for rural revitalization

By utilizing the Company's micro-platforms and promotional displays, it actively promoted local specialty products such as Muscovy duck soup and fish balls from Yangxin County, as well as highaltitude vegetables and tea from Changyang County. Employees of the Company and its affiliated companies were encouraged to purchase the high-quality products from assisted areas.

## **Holding public** welfare and volunteer activities

The Company continued to advance its volunteer service activities in four key areas, namely Youth Protection, Youth Care, Youth Action, and Youth Warmth in Communities. Volunteer initiatives were carried out under these themes through activities such as "Youth Volunteers for a Beautiful Yangtze River", "Joint Maintenance of Plant Environments", "Bringing Energy Knowledge into Schools", and "Volunteer Public Service Markets", further enhancing the Company's reputation for social responsibility. The Company's youth volunteer service team was officially recognized as Benyu Volunteer Service Team in Hubei Province.



The Company organized and engaged over 600 young employees to participate in more than 30 volunteer service activities

The cumulative service hours reached 2.240.

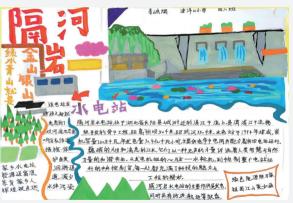
Over 1.300 individuals were benefited, including nearby residents, left-behind children, elderly community members, and people with disabilities.





On December 20, 2024, the Company held the first Open Day event for the Industrial Heritage Site of Geheyan Hydropower Project. Centered on the theme "Sister PhD Takes Me to See the Dam", 48 students from Jinyangkou Primary School in Changyang Tujia Autonomous County were invited to visit the plant's powerhouse, central control room, dam intake, and ship lift, offering them a "zero-distance" experience in viewing the full hydropower generation process. Through interactive activities such as knowledge quizzes and themed check-in, students were fully immersed in the unique industrial culture right in their own community. Many of the participating students expressed their impressions by illustrating their visions of the Geheyan Hydropower Station through heartfelt drawings.





## **Maintaining Positive Community Relations**

Strengthening community relations management

The Company prioritizes local procurement and recruitment, aiming to establish long-term, stable, and harmonious partnerships with surrounding communities. Through regular surveys, community visits, and stakeholder communication, it has gained deep insight into local community development needs and strategically allocated resources to support infrastructure improvements, enhance public welfare, and optimize community services.

# Selecting project sites in a science-based way

In accordance with the Management Measures for the Preliminary Review of Land for Construction Projects, the Company assesses the potential risks of project site selection from environmental, social, and economic perspectives. Projects are planned to align with national land-use plans and ecological environment zoning regulations to avoid negative impacts on local communities due to project construction. The Company strictly adheres to the Land Administration Law of the People's Republic of China and other relevant regulations, and obtains the necessary land use approvals for construction land. Pre-approval and site selection consent documents have been obtained for all ongoing construction projects.

## **Fulfilling Overseas Social Responsibilities**

Supporting the APEC PERU 2024

In active response to the Belt and Road Initiative, the Company ensured reliable energy supply assurance during the APEC PERU 2024. As the third-largest hydropower station in Peru by installed capacity and a key power source for the national grid, the Chaglla Hydropower Station generated an average of 6.767 GWh per day during the event, with a total output of 33.835 GWh, providing strong support for the successful hosting of the event.

Advancing the localization of overseas employees

Empresa de Generación Huallaga S.A. ("EGH" for short), an affiliated company of HBEG, implemented a localization management policy. By the end of 2024, **91.1**% of its overseas workforce consisted of local employees.

Strengthening overseas community development

A Community Resident Consultation and Complaint Center was established at the Chaglla Hydropower Station to promote the communication between the Company and local communities. The Company promoted community residents' well-being by giving priority in recruiting local residents for jobs related to constructing drainage ditches, clearing roadside gutters, and removing reservoir debris, and provided 53 employment opportunities for local communities throughout the year. It improved local infrastructure, and cleared the rural roads blocked by mudslides, resolving the travel issues for 50 households. It also helped community residents install water pipelines to improve their living conditions.

# Actively promoting cultural integration

The Company organized vibrant cross-cultural events such as the traditional New Year activity titled "A Joyful Chinese New Year", Mandarin interest classes, and the cultural exchange lecture titled "Discover the Beauty of Chinese Civilization" between China and Peru, aiming to create unique cultural programs such as "Ambassadors of Chinese Civilization" and China-Peru dance flash mobs. These efforts have offered more opportunities for local employees to learn about China, and fostered the mutual cultural exchange and deeper emotional connections between the two nations.



# 2.4

## **Suppliers and Customers**

# Supply Chain Safety and Management

We have strictly complied with the Law of the People's Republic of China on Tenders and Bids and its implementation regulations, as well as relevant documents released by the national ministries and commissions, such as the Opinions on Strictly Enforcing Bidding and Tendering Regulations to Further Standardize the Behavior of Relevant Parties, aiming to enhance procurement competitiveness and foster a fair, impartial, and trustworthy atmosphere for cooperative contract execution.

## Management system

The Company's procurement and supply chain operations are overseen by the Tender Management Committee, under which specialized subcommittees and an international business subcommittee are set up. Procurement activities involve the participation of the purchaser, agency, bid evaluation committee, and decision-making body. All parties strictly adhere to relevant regulations to ensure the separation of execution, approval, decision-making, and supervision functions, thereby ensuring transparent and standardized management.

# Number and distribution of suppliers



In 2024, a total of 3,567 suppliers cooperated with the Company.

## Geographic distribution, number, and proportion of suppliers

Hubei Province	Beijing Municipality	Jiangsu Province	Sichuan Province
(1763, 49.42%)	(230, 6.45%)	(189, 5.30%)	(152, 4.26%)
Henan Province	Shandong Province	Guangdong Province	Shanghai Municipality
(143, 4.01%)	(130, 3.64%)	(129, 3.62%)	(102, 2.86%)
Xinjiang Uygur Autonomous Region (92, 2.58%)	Shaanxi Province	Hunan Province	Zhejiang Province
	(90, 2.52%)	(77, 2.16%)	(73, 2.05%)
Hebei Province	Liaoning Province	Anhui Province	Tianjin Municipality
(68, 1.91%)	(56, 1.57%)	(41, 1.15%)	(37, 1.04%)
Jiangxi Province	Shanxi Province	Jilin Province	Chongqing Municipality (21, 0.58%)
(28, 0.78%)	(26, 0.72%)	(25, 0.7%)	
Heilongjiang Province	Yunnan Province	Fujian Province	Inner Mongolia Autonomous Region (11, 0.31%)
(21, 0.58%)	(15, 0.42%)	(13, 0.36%)	
Gansu Province	Ningxia Hui Autonomous Region	Guizhou Province	Guangxi Zhuang Autonomous Region
(9, 0.25%)	(8, 0.22%)	(7, 0.20%)	(6, 0.17%)
Hainan Province	Qinghai Province	Hong Kong	
(3, 0.08%)	(1, 0.03%)	(1, 0.03%)	

### Environmental

Pursuing Green Development to Protect Our Beautiful Homeland

### Social

Assuming Responsibilities and Advancing Mutual Benefit and Shared Growth

Advancing Through Change and Pursuing Value Creation

## Supplier selection and management

We have established a comprehensive supplier selection and management system covering a complete process of "access - training - assessment - supervision" through developing regulations such as the Tendering and Procurement Management Measures, Management Measures for Owner's Evaluation Committee, Rules of Procedure for the Tender Management Committee, and Supervisory Measures for Tendering and Procurement.



We have set clear requirements for potential suppliers regarding their qualifications, performance, and contract fulfillment capacity. These requirements are reviewed and confirmed during the procurement evaluation stage.

We provide a compilation of supplier management policies and operation manuals on the supplier interface of our electronic procurement platform to guide suppliers in actively and compliantly participating in our bidding and procurement projects.

A dual-dimension evaluation mechanism which combines annual and dynamic assessments is adopted to categorize suppliers into four levels (A to D).

Enhanced contract execution supervision is applied to C-level suppliers, while D-level suppliers are restricted from bidding. Evaluation results are published regularly.

We also monitor supplier performance in areas such as lawful operations, quality assurance, environmental protection, and health and safety compliance.

# Supply chain collaboration and empowerment



**Strategic collaboration for efficiency gains:** We have cooperated with strategic suppliers in multiple domains and formats, including, but not limited to establishing a collaborative reserve system, advancing joint technical research, and developing an intelligent supply chain, aiming to achieve resource sharing, mutual complementarity, and jointly drive supply chain optimization and upgrades.

**Coordinated development of multiple sectors:** Through a digital management system, we have coordinated the existing business system and leveraged the synergy of different sectors. Via innovative material management within the supply chain, we have ensured seamless supply for core, extended, and emerging business lines, and promoted the interconnected development and mutual support among different business sectors.

**Digital integration and upgrades:** Digital platforms have been used to integrate the business system with production and management processes to promote the digital transformation of supply chain management and enhance the operational efficiency.

**Green supply chain development:** We have established a management system for green supply chain that incorporates the green, low-carbon, environmental friendly concepts and technologies throughout the lifecycle of supply chain, including planning and design, procurement, manufacturing, logistics, warehousing, production, retirement, and disposal. Guided by resource conservation, environmental protection, and human health, we have increased the procurement of green, low-carbon, and high-quality products and services, guiding and encouraging suppliers to speed up green transformation. For instance, in engineering projects, we procured green and energy-efficient materials, implemented eco-friendly, energy-saving construction processes and measures, and steadily promoted the use of new energy transport vehicles in construction.

# Supply chain safety and stability



We have compiled a risk control checklist and promptly adjusted processes or taken measures to strictly manage and mitigate major risks.



During the procurement phase, we recommend alternative suppliers, identify strategic suppliers, and strengthen collaboration with them to ensure stable supply. We also implement a categorized and tiered management approach for critical materials, regularly analyze the safe stock levels and reserve quotas based on equipment health status, and appropriately increase the safe stock for essential materials. Besides, we have strengthened joint reserves and procurement of core materials of the same kind among subsidiaries. We have also conducted supplier qualification reviews and credit evaluations, and regularly published supplier rating information to promote contract integrity and performance. No supplier-related safety incidents were reported.



We have developed a tiered material reserve list and actively adopted e-commerce procurement models to conduct material procurement and inventory management in a science-based and rational manner. These efforts have continuously optimized indicators such as material consumption per unit capacity, occupied stock per unit capacity, stock value per unit installed capacity, and stock turnover rate.



Before signing the contract, the winning bidder is required to submit a workers' wage payment guarantee to ensure that migrant workers are paid on time and in full. According to the general contract clauses for engineering projects, contractors are required to implement effective labor protection measures, including dust prevention and safety guarantee during high-temperature, low-temperature, and high-altitude operations, thereby safeguarding the occupational safety of workers.



Number of major supply chain risk incidents

U



Stock value per unit of installed capacity

RMB 10.66/kW

Stock fund turnover

**0.84** times, effectively reducing management costs

# Equal Treatment of SMEs

The Company has strictly complied with the *Law of the People's Republic of China on the Promotion of Small and Medium-Sized Enterprises* and the *Regulations on Ensuring Payment to Small and Medium-Sized Enterprises*. As of the end of the reporting period, the Company's accounts payable (including notes payable) totaled RMB 3.729 billion, accounting for 3.79% of the total assets. The Company and its holding subsidiaries have disclosed that they have no overdue payments to small and medium-sized enterprises via the National Enterprise Credit Information Publicity System.

The Company has continued to optimize the generating equipment maintenance procedures,

strengthen the analysis of operational parameters for key equipment, and increase equipment inspection frequency to identify and eliminate potential risks early. Efforts have been made to

coordinate the upgrade and renovation of aging equipment while updating and improving technical and management measures to prevent unplanned outages or deratings. In combination with

the reliability management innovation initiative, the Company has strengthened the analysis and

application of power reliability data, taking reliability as a critical basis for evaluating equipment

overhauls and technical transformation. These efforts have provided strong data support for

scheduling the generating unit maintenance cycles and items, and initiating major technical upgrade

programs. As of December 2024, a total of 5,844 technical standards have been developed by the Company's power production units, including 3,377 overhaul and operation procedures and

2,467 work instructions. Both new and existing standards are compiled or revised in accordance

with the Company's technical standard system, establishing a basic framework for the Company's

# Product and Service Management

## **Production standards**

Number of technical standards jointly compiled by the Company's power generation units

5.844 standards

## Quality management

## Management system

management system for technical standards.

The Company has strictly abided by relevant laws and regulations, including the *Law of the People's Republic of China on Product Quality* and the *Regulations on the Quality Management of Construction Projects*. In line with the principles of "shared responsibilities between the Party and governments, dual responsibilities for one position, collective governance, and accountability for negligence", it has established a quality responsibility system with clear general and business-specific quality objectives.

The Party Committee Secretary and General Manager are the Company's chief quality officers and hold overall responsibility for the Company's quality management. The Deputy General Manager in charge of quality work assists the chief quality officers in implementing applicable quality laws and regulations, standards, and management rules, coordinating the Company-wide management of quality work, and taking leadership responsibility for the centralized management of quality work. Each department is involved in quality management according to its responsibilities and assumes corresponding management duties. Each subsidiary within the Company is the primary entity responsible for its own quality-related work.

## System construction

The Company has established several internal regulations which cover all stages from production to service delivery, including the *Quality Management System (Trial)*, *Regulations on Reporting and Handling Quality Incidents (Accidents)*, *Management Measures for Quality Supervision (Trial)*, and *Quality Reward and Punishment Measures*.

## Management measures

We hold monthly meetings on quality and safety supervision, and meetings of Work Safety Commission regularly to communicate and implement directives from higher authorities, report on the completion status of key quality and safety tasks, and plan subsequent work to ensure the ongoing progress of quality management.

We steadily advance the three-year campaign to address the root causes of work safety issues, as well as targeted initiatives such as prevention of "three violations" (illegal command, illegal operations, and violation of labor discipline), ensuring the fulfillment of responsibility at every level to drive the effective implementation of all quality management measures.

We also enforce the quality and safety oversight of business activities including investment project development and construction, hydropower generation, coal-fired power generation, gas-fired combined heat and power (CHP), wind and photovoltaic power generation, natural gas transmission and distribution, coal trading and coal port logistics, and integrated smart energy development and operations through the implementation of mechanisms for quality and safety information reporting, dual-prevention systems, quality and safety supervision and inspection, and performance evaluations with associated rewards and punishments.

## **Environmental management objectives and achievements**

- No major or serious quality accidents
- No adverse quality incidents at Level 3 or above
- No major or above engineering quality accidents
- ✓ No safety accidents caused by quality hazards

100% one-time acceptance pass rate for unit projects;

98% one-time acceptance pass rate for partitioned project/ subprojects;

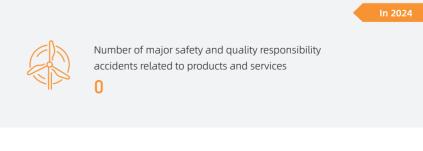
90% one-time acceptance pass rate for inspection batches

Over 95% one-time pass rate for on-site welding of natural gas pipelines

(The pass rate is calculated based on the number of welds.)

- Customer satisfaction rate of over 90%, and on-time complaint resolution rate of 100%
- 100% achievement rate for electricity trading plans
- Completion rate for maintenance and technical upgrade projects ≥ 95%
- **Y** Equivalent availability factor for equipment ≥ 92%
- Loss of electricity caused by spilled water at Qingjiang Company ≤ 10 GWh
- ✓ Availability rate of wind turbines ≥ 98%





◀ ISO9001 Quality Management System Certification



# Customer rights protection

The Company has developed the *Customer Management Measures in Marketing Activities* to standardize customer management standards and responsibilities in marketing activities, strengthen customer management and maintenance in both upstream and downstream operations, improve the service quality, and enhance the brand value. It has also improved the communication channels. With methods such as on-site visits, online follow-ups, and phone calls, it can stay updated on customers' electricity usage and ensure accurate power consumption forecasting. Besides, it has proactively promoted national electricity industry policies, and provided smooth complaint channels to address customer concerns and resolve customer requests. **No** customer complaints were received.





In 2024, our affiliated company - Hubei Power Sales Company signed contracts with 154 power customers under a "fixed service rate" model, marking an increase of 11%. Its customer satisfaction rate was 100%. It was rated AAA in Hubei power market operator evaluation, ranking first among the power sales companies with a power generation group background. It is the only enterprise in the province to have received the AAA rating for seven consecutive years.

# Data security and customer privacy protection

Data security management

Protection of customers' privacy

The Company formulated the *Data Security Management Measures (Trial)* to continuously enhance its data security management system. It implemented the classified and tiered data management requirements, and developed a comprehensive data classification and grading catalog. It launched education and publicity programs on information system data security, confidentiality, and personal information security to strengthen employees' awareness of data security. It also organized data security supervisions and inspections, and conducted data security risk assessments. As a result, it produced the *Data Security Assessment Report*. Furthermore, it addressed any identified issues. It had **no** data security incident.

Following the principles of "unified coordination, tiered management, and information resource sharing", the Company strictly adheres to the *Customer Management Measures in Marketing Activities* and the contracts signed with customers to protect customers' privacy. Customer information is collected through legal, compliant, reasonable, and reliable channels. Access to and use of customer information also follows relevant regulations strictly. It had **no** incidents of customer information leakage.



## Practice of fulfilling responsibilities

Upholding the philosophy of "integrity, compliance, and value creation", we diligently implement the actions for deepening and upgrading the reform of SOEs. We focus on building a modern enterprise system with Chinese characteristics that delivers outstanding performance, using modern corporate governance as the engine to drive high-level value creation. By continuously strengthening core functions and enhancing core competitiveness, we realize our high-quality development.

Contribution to the U.N. Sustainable Development Goals (SDGs)





Advancing Through Change and Pursuing Value Creation

3.1

## State-Owned Enterprise (SOE) Reform

We have solidly advanced the actions for deepening and upgrading the reform of SOEs, coordinated and implemented functional-mission-oriented and institutional-mechanism-oriented reform tasks, and achieved an overall completion rate of over 70%, exceeding the SASAC's phased target of 70%. In the assessment results of "Double-Hundred Enterprises" announced by the State-owned Assets Supervision and Administration Commission of the State Council, we were rated as a "benchmark" enterprise.

## Six Mechanisms for Reform

## Organizational leadership

We established the Leading Group for Comprehensively Deepening Reforms, and set up the Leading Group Office, with main heads earnestly fulfilling their roles as primary responsible persons.

### Inspection and survey

We incorporated reform completion status and key reform tasks into the scope of company inspections & surveys and comprehensive assessments of managers.

## Extension to the grassroots level

We extended policy advocacy and specialized guidance directly to the grassroots level, implemented the grassroots liaison enterprise system of the SASAC for reform, and established Ezhou Power Generation Company as a grassroots liaison enterprise for reform.

## **Tracking and supervision**

We tracked reform progress quarterly and conducted phased summaries annually.

### **Examination and evaluation**

We included indicators related to key reform tasks in the performance evaluation indicator system.

## **Publicity and promotion**

We identified over 40 exemplary reform cases based on the SASAC's reform experience topic scope.

# 3.2

## Corporate Governance

We keep improving the corporate governance system and establish a transparent, compliant modern governance structure featuring clear rights and responsibilities, and effective checks and balances. Emphasizing compliant operations, we effectively manage risks, strengthen internal communication and external collaboration, and foster a fair and transparent business environment, thereby providing enduring momentum for long-term value creation through excellent governance.

## **Organizational structure and functions**

## **Shareholders' Meeting**

The Shareholders' Meeting serves as the highest authority of the Company. The Company convenes meetings of shareholders in strict accordance with the *Company Law of the People's Republic of China, the Articles of Association*, and the *Rules of Procedure for the Shareholders' Meeting*, fully safeguarding shareholders' statutory rights and ensuring equitable treatment for all shareholders. All these meetings are held through a combination of on-site and online voting, enabling universal participation and protecting shareholders' rights to information and voting on relevant decisions.



Number of shareholder's meetings convened



Number of proposals deliberated

27

Proposal approval rate

In 2024

100%

## **Board of Directors**

Subject to laws and regulations such as the Company Law of the People's Republic of China and the Securities Law of the People's Republic of China, as well as regulatory requirements such as the Guidelines of the Shenzhen Stock Exchange for Standardized Operation of Companies Listed on the Main Board, the Board of Directors executes its duties with excellence while safeguarding the interests of shareholders and the Company. We continuously strengthen our institutional framework by formulating the Independent Director System and the Working System for Special Meetings of Independent Directors and revising the Management Measures for Shares Held by Directors, Supervisors and Senior Executives and Their Changes and the Insider Registration System for Insider Information.

### ■ Diversity in the Board of Directors

The Board of Directors prioritizes diversified membership after considerations given to industry experience, professional background, age, gender, and education background - to enhance governance quality and decision-making efficacy. Director candidates are reviewed by the Nomination and Remuneration Committee, deliberated by the Board of Directors, and finally elected at the shareholder's meetings. On July 18, 2024, the Company completed its Board election, appointing 9 members to the 10th Board with expertise in energy, operation & management, law, and finance.

### Environmental

Pursuing Green Development to Protect Our Beautiful Homeland

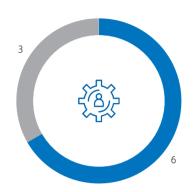
### Social

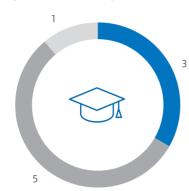
Assuming Responsibilities and Advancing
Mutual Benefit and Shared Growth

### Governance

Advancing Through Change and Pursuing Value Creation

## ■ Directors recommended by shareholders ■ Independent directors ■ Doctor's degree ■ Master's degree ■ Bachelor's degree





### ■ Performance by the Board of Directors

## **Board of Directors**

The Board of Directors fulfills its roles in strategy formulation, decision-making, and risk mitigation. It is responsible to the Shareholders' Meeting, implements the resolutions of the Shareholders' Meeting, and manages critical matters including corporate governance, production & operation, financial management, investment & development, internal control compliance, and executive appointments. In 2024, the Board convened 9 meetings, on which the directors deliberated 70 proposals with a 100% approval rate.

## Special committees

Subject to the principle of lean and efficient operations, the original four special committees of the Board of Directors were streamlined into three, with the former Nomination Committee and the former Remuneration and Assessment Committee merged into the Nomination and Remuneration Committee. Each special committee adheres to the principle of external directors constituting the majority, with membership determined based on directors' professional expertise and competency structure. This fully leverages the professional strengths of external directors, providing robust support for Board's decision-making and fostering the development of a science-based, rational, and efficient Board.

## Strategy Committee

It is primarily responsible for analyzing the Company's medium-to-long-term development strategy, major investment decisions, and ESG matters and providing recommendations. In 2024, the 9<sup>th</sup> Strategy Committee convened 3 meetings and deliberated 3 proposals in total with a 100% approval rate. The 10<sup>th</sup> Strategy Committee convened 2 meetings and deliberated 11 proposals with a 100% approval rate.

## Audit and Risk Management Committee

It is primarily responsible for facilitating communication over internal and external audits, advancing legal and compliance management, and overseeing and inspecting the implementation and effectiveness of internal control and risk management systems. In 2024, the 9<sup>th</sup> Audit and Risk Management Committee convened 3 meetings and deliberated 17 proposals in total with a 100% approval rate. The 10<sup>th</sup> Audit and Risk Management Committee convened 5 meetings and deliberated 17 proposals with a 100% approval rate.

## Nomination and Remuneration Committee

It is primarily responsible for analyzing candidates, selection criteria and procedures for the Company's directors and senior executives and for providing recommendations. In 2024, the 9<sup>th</sup> Remuneration and Assessment Committee convened 2 meetings and deliberated 3 proposals in total with a 100% approval rate. The 9<sup>th</sup> Nomination Committee convened 1 meeting and deliberated 2 proposals with a 100% approval rate. The 10<sup>th</sup> Nomination and Remuneration Committee convened 2 meetings and deliberated 6 proposals with a 100% approval rate.

### ■ Independence of the Board of Directors

We improve the work system for independent directors to fully leverage their critical role. In 2024, 5 special meetings of independent directors were held, approving 21 proposals, including the *Proposal on the Conversion of Undistributed Profits into Registered Capital and Related Transactions of Three Gorges Finance Co., Ltd., an Associate Company of Hubei Energy Group, and the Proposal on the Agreed Transfer of Shares of Changjiang Securities Company Limited.* 

## **Board of Supervisors**

The Board of Supervisors is responsible to the Shareholders' Meeting and reports its work to the same based on the principles of fact-based oversight, honesty and diligence, and acting by law. It independently supervises and inspects the financial accounting practices and performance of directors and senior executives of the Company. Non-employee supervisor candidates are elected at the shareholder's meetings of the Company after deliberation by the Board of Supervisors; while employee representative supervisors are elected through the Staff and Workers' Representative Congress. On July 18, 2024, the Company completed the re-election of the Board of Supervisors. The new board of supervisors consists of 5 supervisors, including 2 employee supervisors and 3 external supervisors.

In 2024



Number of meetings of the Board of Supervisors convened

meetings



Number of proposals deliberated

**29** proposals

## Management level

Management team members possess diversified professional backgrounds, educational backgrounds, and industry experience. The appointment of management team members follows a comprehensive and rigorous evaluation process. They are appointed by and responsible to the Board of Directors. The general manager and the board secretary are nominated by the chairman, while deputy general managers, general counsels, and chief accountants to be appointed or dismissed by the general manager.

## Remuneration plan

After review and approval by the Board of Directors, the allowance plan for independent directors shall be submitted to the Shareholders' Meeting for approval and implementation. The remuneration plan for senior executives shall be implemented in accordance with the *Management Measures for Remuneration of Senior Management Executives (Trial)*, and the implementation plan shall be carried out after review and approval by the Board of Directors. The remuneration for employee supervisors shall be determined and received based on their actual positions (posts) in the Company. Other external non-independent directors and external supervisors shall not receive remuneration from the Company.

## Remuneration transparency

The Nomination and Remuneration Committee reviews the remuneration received by the Company's directors and executives, and discloses it in the Company's annual report to ensure that shareholders and other stakeholders have a clear visibility into the remuneration of members of the Board of Directors.

### Advancing Through Change and Pursuing Value Creation

## Term-based and contractual management

The Company implements term-based and contractual management for senior executives, including the general manager and deputy general manager (chief accountant, Board secretary, and general counsel). Based on fixed terms and contractual agreements, the Board of Directors conducts annual and term assessments in accordance with contracts or agreements, with remuneration and appointment (or dismissal) tied to the assessment results.

The Company developed the Management Measures for Performance Assessment of Senior Executives under Term-based and Contractual Management, based on which it launched rigid assessments on operation performance indicators of senior executives subject to term-based and contractual management. Operation performance indicators comprise operational efficiency indicators, key special work indicators, position-specific KPIs, and binding indicators, mainly including safety, environmental protection, violations, and law-based enterprise management.

The Company developed the Management Measures for Remuneration of Senior Management Executives (Trial), enforcing performance-linked pay for senior executives, structured as annual salary (basic annual salary and performance-based annual salary (not less than 60%), and term-based

## **Compliant operation**

Compliance management mechanism

The Company revised the Management Measures for Legal Dispute Cases, the Assessment Rules for Rule-of-Law Development, the Compliance Management Rules for Anti-Commercial Bribery in Overseas Operations (Trial), and the Compliance Manual, formulated normative documents to strengthen the compliance management of foreign-funded consulting institutions and business partners, and guided its affiliates in preparing compliance guidelines on renewable energy development and labor employment. The Company has so far established a "1+2+N" compliance management system, which is led by the Compliance Management Measures, supported by the Compliance Manual and the "Three Checklists" for Compliance Management, and focuses on special compliance policy guidelines.

## Compliance management system



The Company has implemented the primary responsible person mechanism for rule-of-law development, and established an organizational system for compliance management led by main heads of the unit, spearheaded by the general counsel (Chief Compliance Officer), centrally managed by the Enterprise Management and Legal Department, and collaboratively executed by relevant departments.



The Company has established a compliance committee to coordinate the key tasks of lawful and compliant operations and organize analyses and discussions on major issues such as rule-of-law development, compliance management, and risk control



The Company has improved the Chief Compliance Officer system, with a total of **28** Chief Compliance Officers appointed by the Company and its subsidiaries. The Chief Compliance Officers attend important decisionmaking meetings such as meetings of the Party Committee, the Board of Directors, and the General Manager Meeting to conduct legal and compliance reviews for major decisions.

## Three lines of defense in compliance management







First defense line

Second defense line

Third defense line

Each department is staffed with compliance specialists to conduct legal and compliance reviews on operation and management matters within their respective business domains.

The Enterprise Management and Legal Department conducts legal and compliance reviews on rules and regulations, economic contracts, and important decisions.

Disciplinary inspection and audit departments investigate violations and enforce accountability.

## Compliance management mechanism

**Preventive** mechanism



The Company has established a compliance risk identification, assessment and warning mechanism, and regularly organized company-wide, cross-domain, and all-round business compliance risk investigations, generating rectification lists and issuing compliance risk alerts with targeted corrective measures. It has embedded legal and compliance reviews as a mandatory step in the business management process, achieving 100% review rates for management policies, economic contracts and important decisions. In 2024, it focused on guiding second-tier companies in implementing internal legal reviews and the general counsel's pre-review system.



The Company has established a compliance risk management mechanism, responding to, supervising, and quarterly/annual reporting of compliance risks. It has also established a mechanism for rectifying violations, addressing the issues identified during the special compliance investigation by improving rules and regulations, standardizing workflows and using other methods to eliminate management vulnerabilities and enhance the level of lawful and compliant management. Besides, it has established an accountability mechanism for violations, implemented strict supervision and accountability, and deepened the approach of "using cases to improve governance", forming a closed loop of compliance management.

mechanism

Post-hoc evaluation mechanism

The Company has established a compliance management assessment mechanism, incorporating the effectiveness of compliance management into the annual performance evaluation goals with a 3% weighting. Evaluations cover units' and staff's adherence to compliance management requirements and duty fulfillment, with the results directly impacting staff assessments, personnel appointments and recognition awards.

The Company has established a comprehensive risk management and internal control system. Building

on the annual comprehensive risk assessment, the Company conducted, for the first time in 2024, key

project risk identification and targeted stress testing to pinpoint critical risk exposures. This enables clear

Advancing Through Change and Pursuing Value Creation

## Overseas compliance development

The Company strictly abides by host-country laws and regulations as well as international rules, incorporating compliance requirements throughout the business process. Empresa de Generación Huallaga S.A. ("EGH") has established a multi-level management system. EGH has also set up a comprehensive management system committee and an anti-bribery compliance committee, improved hierarchical policy management, and refined the control process. Besides, it has organized ISO37001 centralized training for department heads and compliance specialists to enhance compliance levels. In addition, it has continued to advance digitalization through George and SAP ERP systems to automate legal data identification and process embedding, improving compliance efficiency.

## **Risk Management**

Strengthening risk management throughout the process

## **Analysis and summarization**

Conduct in-depth analysis of the risk factors that have a significant impact on the Company's development based on the Company's development strategy and action plan, as well as the completion of production and operation goals and risk management in the previous year.





## **Mechanism improvement**

Adopt a balanced approach that integrates comprehensiveness with prioritization, and improve the 'point-line-surface' risk assessment mechanism. By leveraging specific risk identification at the 'point' level and thematic risk evaluation along the 'line' dimension, we can better inform holistic 'surface'-level risk assessment, thereby enhancing scientific rigor and operational efficacy of the assessment.



### **Risk identification**

Thoroughly analyze the changes in external factors such as macroeconomic environment, laws and regulations, industry policies, market supply and demand, and technological changes at home and abroad; collect and integrate a large amount of data and information; analyze the internal and external key risks that may affect the achievement of this year's management goals in a science-based way; quantify the potential impact of risks.



## Risk response

Analyze the correlation between risks and company strategy, between business model and values, develop targeted response strategies, and implement management measures.

### Monitoring and evaluation

Regularly monitor and update evaluation results, and respond to new risks in a timely manner to ensure the sustainable development of the Company.

## Risk management actions



The Company reviewed all regulatory requirements pertaining to risk management and internal controls in all respects, and continued to improve the risk and internal control system with the aim of "Strengthening Internal Controls, Preventing Risks, and Ensuring Compliance". It actively implemented the integrated management mechanism of legal compliance risks and internal controls, convened special meetings on holistic risk management and internal controls, and compiled the Management Task List for Risks and Internal Controls.



Risk control accountability

At the beginning of the year, the Company conducted a science-based assessment of major operational risks through questionnaires and targeted stress tests after considerations given to changes in the external environment and corporate operations, and submitted the findings to the Board of Directors for review, enabling the refinement of risk control measures. Besides, the Company strengthened the tracking and warning of key risk indicators, enhanced monitoring of risk incidents, and oversaw the implementation of risk control measures. Regular reports were provided for the Board of Directors on the progress of risk management related to corporate operations and major Board decisions.



Internal control rectification

The Company intensified oversight and evaluation of critical domains, including financial internal controls, investment management, engineering construction, tender procurement, and standardized governance of listed companies. A comprehensive assessment was conducted on the effectiveness of internal controls and risk mitigation capabilities in the key areas and critical processes. This involved in-depth analysis of issues in policy design and implementation to address control gaps and establish a sustainable mechanism.

## Internal audit

Internal audit framework under the direct leadership of the Board

Internal audit management system The Company implements the internal audit framework under the direct leadership of the Board of Directors. The Board is responsible for reviewing (or approving) the basic system of internal audit, audit plans, and important audit reports, deciding on the establishment of internal audit institutions and their responsible persons, and strengthening the management of important internal audit matters such as problem rectification and team building. Under the Board, the Audit and Risk Management Committee facilitates coordination between internal and external auditors and proposes the appointment or replacement of external audit institutions. The committee also supervises the internal audit system of the Company and its implementation, and provides opinions on the duty performance and performance evaluation of internal auditors. A chief auditor has been appointed to assist the Party Committee and the Board in managing internal audit operations.

The Company has an audit department at its headquarters. The Audit Department is responsible for centrally managing its audits and reporting to the Board of Directors. Subsidiaries establish and improve their internal audit systems according to relevant laws, regulations and institutional requirements and their actual realities, defining the leadership structure, organizational structure, responsibilities and authorities, staffing, funding support, and application of audit results regarding internal audit.

In 2024, the Company executed 24 audit projects with a planned completion rate of 100%, identifying 385 audit findings. 77 findings were rectified immediately, while 100% of the remaining issues were rectified by deadlines.

Hubei Energy Group Co., Ltd. Environmental, Social and Governance Report 2024

### Environmental

Pursuing Green Development to Protect Our Beautiful Homeland

### Social

Assuming Responsibilities and Advancing Mutual Benefit and Shared Growth Governance
Advancing Through Change
and Pursuing Value Creation

# 3.3

## **Business Conduct**

# Anti-commercial Bribery and Anti-corruption

### Management system

The Company has established and improved an integrity system that covers all employees and supply chains in anti-corruption supervision.

Management Measures for Deliberation of the Disciplinary Inspection Committee

Supervision and Inspection Measures for Implementation of the Guiding Principles from the Eight-point Decision of the CPC Central Committee on Improving Party Conduct and Its Implementation Rules

Implementation Opinions on Motivating and Protecting Managers and Employees to Take Responsibility, Work and Start up Enterprises

Procedures for the Disciplinary Inspection Organization of HBEG to Clear the Names of Falsely Accused Managers

Implementation Measures for Serious Investigation and Punishment of Falsely Accused and Framed Acts by the Disciplinary Inspection Organization of HBEG Implementation Measures for Accountability and Integrity Reporting by Disciplinary Inspection Secretaries (Disciplinary Inspection Members) of Affiliates (Trial)

Nomination and Inspection Measures for Disciplinary Inspection Committees and Disciplinary Inspection Organization Leaders of Affiliator

Special Assessment Measures for Disciplinary Inspection Committee Secretaries (Disciplinary Inspection Members) of Affiliates

Implementation Rules for Integrity Talk Procedures

Implementation Measures for Integrity Education Talks (Trial)

## Organizational structure

The Company has established a robust disciplinary inspection structure with 7 disciplinary inspection committee members exercising their authority through meetings of the disciplinary inspection committee. A coordination group for Party conduct and anti-corruption work and a mega-supervision leadership group were formed to strengthen organizational leadership in anti-corruption efforts. All subsidiaries have set up disciplinary inspection organizations staffed with full-time/part-time personnel, achieving full supervisory coverage.

## Management measures

Development of the "megasupervision" working system The Company clearly defined the responsibilities of 5 types of supervisory entities, namely, the Party committees, disciplinary inspection committees, inspection teams, internal audit departments, and functional departments, and established 6 working mechanisms, including information sharing, joint deliberation, analysis and assessment, and clue transfer. They are integrated into special supervision and accountability processes to promote the integration of integrity supervision with operational supervision.

Proactive supervision in engineering construction

The Company selected 5 key projects to innovatively implement accountability and integrity reporting by Party organization leaders, conducting in-depth analysis of performance compliance and corruption risks in project management to reinforce supervisory accountability and proactively prevent risks. The "Supervision Team for Integrity Project" mechanism was piloted at 2 construction units, where the disciplinary inspection committee collaborated with functional departments to conduct joint on-site supervisory inspections.

Preventing the risk of overseas commercial bribery

The Company formulated the *Compliance Management Rules for Anti-Commercial Bribery in Overseas Operations (Trial)*, fully incorporating the requirements of overseas compliance management, as part of its ongoing efforts to improve the level of overseas business management.

# Whistleblower protection policy

The Company publishes reporting hotlines and email addresses on its official website homepage. Real-name reporting is encouraged and prioritized for handling, while anonymous reports within the scope of acceptance are processed per procedures. Whistleblowers' rights are protected in accordance with regulations and laws, with strict confidentiality maintained regarding whistleblowers' information and reported content. All reports are accepted or all investigations are conducted without disclosing the whistleblowers' information.

## Corruption risk assessment

The Company identifies, analyzes, and evaluates potential commercial bribery and corruption risks based on business characteristics and operational environment in all respects. It prioritizes oversight of corruption risk points in engineering construction, tender procurement, and renewable energy resource acquisition, while identifying emerging corruption risk patterns to strengthen effective monitoring mechanisms, thereby providing robust safeguards for its sustainable and sound development.

# Education and training

Hierarchical and categorized anti-commercial bribery and anti-corruption training is delivered through warning education sessions, legal seminars, e-learning, and case studies. Over 4,500 personnel - including all directors and managers - received training, achieving 100% coverage.

# Anti-corruption in the supply chain

The Company attaches great importance to anti-corruption management in the supply chain. All procurement contracts require the execution of integrity agreements between purchasers and suppliers, stipulating mutual responsibilities and obligations, particularly, prohibited supplier conduct, as well as accountability mechanisms and penalty measures for integrity violations. The execution rate of integrity agreements achieves 100% for tender procurement contracts.

# Anti-unfair competition

The Company strictly abides by laws and regulations such as the Anti-Monopoly Law of the People's Republic of China and the Anti-Unfair Competition Law of the People's Republic of China, and adheres to the principles of fair competition and honest operation to effectively maintain market order and the rights and interests of its partners. The Company has **no** incidents related to unfair competition.

**Management system** 

The Company established the *Compliance Management Measures* and the *Related Transaction Management System*, defining its behavioral principles and standards regarding competition/ anti-monopoly and trade secret protection, with clear delineation of compliance redlines. The disciplinary inspection department oversees disciplinary supervision and inspection of anti-unfair competition practices.

Risk pre-warning

Aligned with operational realities, the Company intensifies anti-monopoly compliance risk screening with a focus on key sectors, processes and personnel. Regular risk assessments are conducted, with enhanced warnings for high-risk individuals to ensure risk containment.

Internal supervision

The Company improves internal supervision mechanisms and internal investigation procedures to ensure timely detection and rapid response to potential unfair competition behaviors.

**Education and training** 

Regular thematic training sessions are provided to elevate employees' business ethics and legal compliance awareness. In 2024, 4 sessions of commercial confidentiality training were provided, with a total of 20 class hours and over 2,000 participants. 17 sessions of legal compliance and internal risk control training were provided, with a total of 199 class hours and over 690 participants.

Supplier management

When a cooperation agreement is signed with a supplier, it is required that the partner sign a *Compliance Commitment Letter* with the anti-unfair competition clause.

3.4

## Information Disclosure and Investor Relations

# Transparency of Information Disclosure

The Company strictly abides by relevant laws, regulations, and securities regulatory agencies' rules. It establishes an information disclosure management mechanism featuring standardized preparation, multi-level review and timely disclosure, and fulfills investor-oriented disclosure obligations in accordance with the law. It also adopts diverse carriers of information disclosure and showcases its development highlights through digital means, disclosing information truthfully, accurately, completely, timely, and fairly. In 2024, the Company issued 143 disclosure materials and 84 announcements (including 4 periodic reports and 80 temporary announcements), communicating its major decisions and development achievements without subsequent corrections, supplements or material errors. It received an "A" (Excellent) rating in the evaluation of information disclosure for listed companies on the main board of the Shenzhen Stock Exchange from 2023 to 2024.

At least one financial statement audit shall be conducted annually, with Da Hua Certified Public Accountants (Special General Partnership) serving as the audit firm for 2024 annual report of HBEG and auditing the overall and key audit matters of the Company's annual financial statements, with an annual audit fee of RMB 1.85 million.

## **Investor Relations**

Number of shareholders' meetings held in 2024

5

Including meetings which small and medium-sized investors attended

4

The Board Secretary is fully responsible for the management of HBEG's investor relations, while the Office of the Board, as the specific executing department for HBEG's investor relations work, strengthens communication with investors and potential investors through facilitation of exercise of shareholders' rights, information disclosure, interactive communication, and demand handling.

In compliance with the *Investor Relations Management Policy*, the Company has established a sound investor relations management mechanism that ensures equal treatment of all investors. Multiple communication channels are maintained with investors through performance briefings, field research meetings, roadshow presentations, interactive platform dialogues, and investor hotlines. Operational and financial performance is regularly disclosed through periodic reports, supplemented by voluntary disclosure of monthly power generation data to provide investors with timely updates on main business of the Company.

Before a shareholders' meeting is held, the proposed decisions of the shareholders' meeting are announced through information disclosure, and a combination of online and offline voting is adopted during the meeting to safeguard the decision-making rights of investors.

## Creditor's equity

As of December 31, 2024, the Company has issued the interbank market bonds worth RMB **1.92** billion. It has maintained excellent financial position and stable and sufficient cash flow. It has ensured financial leverage at a relatively low level in the industry, with **no** defaults. Furthermore, it has had a good reputation in the capital market, and continued to maintain AAA entity credit rating. It has had smooth financing channels that enabled the reduction in comprehensive funding costs through secure, reliable financing portfolios.



Hubei Energy Group Co., Ltd. Environmental, Social and Governance Report 2024

# Appendix

## Annual performance<sup>9</sup>

Economic performance	Unit	2022	2023	2024
Operating revenue	RMB	20,578,214,751.99	18,668,672,883.26	20,030,698,490.80
Total profits	RMB	1,625,728,236.98	2,273,626,824.12	2,802,555,818.62
Asset-liability ratio	%	53.79	57.83	58.63
Earnings per share	RMB	0.18	0.27	0.28
Taxes paid	RMB	2,052,753,678.44	1,515,890,381.13	2,017,789,129.92
Total power generation	100 GWh	304.61	357	440.4
Clean energy power generation	100 GWh	149	158	175
Total installed capacity of power generation	10 MW	1195.45	1521.58	1829.97
Total installed hydropower capacity	10 MW	465.73	465.73	465.73
Environmental performance	Unit	2022	2023	2024
Environmental protection input	RMB 10,000	31026.42	34265.52	18550.75
Comprehensive energy consumption	10,000 tons of standard coal equivalent/year	43.2725	42.4561	50.5332
Coal consumption (standard coal equivalent)	10,000 tons	561.17	572.62	747.03
Average standard coal consumption for power supply	g/kWh	302.95	308.05	302.48
Natural gas consumption	100 million m <sup>3</sup>	3.14	1.86	2.41
Energy consumption per RMB 10,000 of output value	ton of standard coal equivalent/RMB 10,000	0.1574	0.2186	0.2422
Fresh water consumption	10,000 tons	2169.24	2507.76	3193.11
Circulating water consumption	10,000 tons	81076.65	108482.87	144232.51
Proportion of circulating water consumption	%	97.39	97.74	97.83
Water consumption per RMB 10,000 of output value	m3/RMB 10,000	7.89	12.91	15.30
Wastewater discharge	10,000 tons	19.70	17.28	33.55
Wastewater discharge intensity	g/kWh	0.15	0.22	0.34

<sup>&</sup>lt;sup>9</sup> Partial data in the main text have been rounded off.

Environmental performance				
	Unit	2022	2023	2024
Emissions of ammonia nitrogen in wastewater	ton	0.35	0.36	0.65
Chemical oxygen demand emissions	ton	4.67	4.12	8.07
Actual emission concentration of ammonia nitrogen	mg/L	1.72	2.3	1.93
Actual emission concentration of chemical oxygen demand	mg/L	23.85	23.3	24.06
Smoke and dust emissions	ton	236.86	167.92	187.07
Sulfur dioxide emissions	ton	1050.8	1045.94	1315.1
Nitrogen oxide emissions	ton	3408.68	3175.62	3382.05
Smoke and dust emission performance	g/kWh	0.012	0.008	0.007
Sulfur dioxide emission performance	g/kWh	0.051	0.053	0.049
Nitrogen oxide emission performance	g/kWh	0.166	0.159	0.128
General industrial solid waste generation	10,000 tons	235.12	242.69	306.34
Utilization of general industrial solid wastes	%	100	100	100
Hazardous waste disposal rate	%	97	99	99
Hazardous waste generation	ton	1161.98	2418.37	549.65
Disposal volume of hazardous waste	ton	1136.06	2412.40	554.90
Scope 1 emissions	10,000 tons	1662.66	1662.16	2176.70
Scope 2 emissions	10,000 tons	0.16	3.43	1.74
Greenhouse gas emissions	10,000 tons	1662.82	1665.59	2178.44
Social performance		2022	2023	2024
Total number of employees	persons	4507	4526	4629
Including: female employees	persons	1104	1065	1047
male employees	persons	3403	3461	3582
Number of ethnic minority employees	persons	748	668	678
Number of overseas employees	persons	122	140	124
Proportion of female managers	%	7.8	7.5	7.9
Social insurance coverage rate	%	100	100	100
Labor contract signing rate	%	100	100	100

Social performance	Unit	2022	2023	2024
Employee turnover rate (active)	%	2.24	1.04	0.98
Competition rate for managerial positions	%	52.27	69.2	92.86
Employee satisfaction	%	100	100	100
Labor issues and complaints handling rate	%	100	100	100
Completion rate of employee proposals	%	100	100	100
Input in employee training	RMB 10,000	515.43	921.6	836.5
Employee training coverage rate	%	80	92	100
Number of employees receiving training	persons	30986	61990	66840
Major safety accident	times	0	0	0
Number of work-related fatalities among employees	persons	0	0	0
Local procurement ratio	%	10.5	40.6	49.42
Total number of work-related injuries	persons	0	0	0
Lost days due to work injury	days	0	0	0
Employees with newly added occupational diseases	persons	0	0	0
Employee health examination rate	%	100	100	100
Support and assistance investment	RMB 10,000	2135.26	2481.55	1038.9
Funds for consumption support initiative for rural revitalization	RMB 10,000	579.93	621.61	533
Accumulated number of authorized patents throughout the year	Nos	46	76	175
Customer satisfaction	%	97.93	100	100
Governance performance	Unit	2022	2023	2024
Number of board meetings	times	11	11	9
Number of directors	persons	8	8	9
Number of female directors	persons	1	1	0
Number of independent directors	persons	3	3	3
External audit fees	RMB 10,000	129.91	216.65	185
Information disclosure documents published	copies	155	194	143

## List of internal ESG-related policies within the Company

Policy name	Corresponding GRI disclosure item
Articles of Association	GRI 102: General Disclosures
Rules of Procedure for the Shareholders' Meeting	GRI 102: General Disclosures GRI 103: Management Measures
Rules of Procedure for the Board of Directors	GRI 102: General Disclosures GRI 103: Management Measures
Working Rules of the Strategy Committee of the Board of Directors	GRI 102: General Disclosures
Internal Reporting System of Important Information	GRI 102: General Disclosures
Information Disclosure Management System	GRI 102: General Disclosures
Related Transaction Management System	GRI 102: General Disclosures
Management Measures for Environmental, Social Responsibility and Corporate Governance	GRI 102: General Disclosures
Management Measures for Fulfilling Social Responsibility Projects	GRI 203: Indirect Economic Impacts
External Donation Management System	GRI 203: Indirect Economic Impacts
Compliance management system	GRI 205: Anti-corruption GRI 308: Supplier Environmental Assessment GRI 419: Socioeconomic Compliance
Tax Administration Measures (Trial)	GRI 207: Tax
Measures for Energy Saving and Emission Reduction Monitoring and Statistical Management	GRI 302: Energy
Management System of Ecological Environment Protection	GRI 303: Water and Effluents GRI 304: Biodiversity GRI 305: Emissions GRI 306: Waste GRI 307: Environmental Compliance

GRI 303: Water and Effluents GRI 304: Biodiversity GRI 305: Emissions GRI 306: Water GRI 307: Environmental Compliance  GRI 307: Environmental Compliance  GRI 308: Water and Effluents GRI 307: Environmental Compliance  GRI 307: Environmental Compliance  GRI 308: Water and Effluents GRI 308: Water and Effl	Policy name	Corresponding GRI disclosure item
Environmental Protection Plan and Statistical Management Measures  GRI 305: Emissions GRI 306: Waste GRI 307: Environmental Compliance  Management Measures for Corporate Environmental Compliance Assessment  Employee Recruitment Management Measures  GRI 401: Employment  Labor Contract Management Measures  GRI 401: Employment  Employee Attendance and Leave Management Measures  GRI 401: Employment  Employee Attendance and Leave Management Measures  GRI 401: Employment  Management Measures for Employee Welfare Fees  GRI 401: Employment  GRI 401: Employment  GRI 403: Occupational Health and Safety  Mork Safety Management Measures  GRI 403: Occupational Health and Safety  Management Measures for All-Staff Work Safety Responsibility System  GRI 403: Occupational Health and Safety  GRI 403: Occupational Health and Safety  Measures for the Management of Rewards and Punishments for Work Safety  GRI 403: Occupational Health and Safety  GRI 403: Occupational Health and Safety	Environmental Factors Identification, Evaluation, and Management Methods	GRI 304: Biodiversity GRI 305: Emissions GRI 306: Waste
Employee Recruitment Management Measures  GRI 401: Employment  Employee Attendance and Leave Management Measures  GRI 401: Employment  GRI 401: Employment  Management Measures for Employee Welfare Fees  GRI 401: Employment  Management Measures for Occupational Health and Safety Performance Monitoring and Compliance Evaluation  GRI 403: Occupational Health and Safety  Management Measures  GRI 403: Occupational Health and Safety  Management Measures for All-Staff Work Safety Responsibility System  GRI 403: Occupational Health and Safety  Measures for the Management of Rewards and Punishments for Work Safety  GRI 403: Occupational Health and Safety	Environmental Protection Plan and Statistical Management Measures	GRI 304: Biodiversity GRI 305: Emissions GRI 306: Waste
Labor Contract Management Measures  GRI 401: Employment  GRI 401: Employment  Management Measures for Employee Welfare Fees  GRI 401: Employment  Management Measures for Occupational Health and Safety Performance Monitoring and Compliance Evaluation  GRI 403: Occupational Health and Safety  Work Safety Management Measures  GRI 403: Occupational Health and Safety  Management Measures for All-Staff Work Safety Responsibility System  GRI 403: Occupational Health and Safety  Measures for the Management of Rewards and Punishments for Work Safety  GRI 403: Occupational Health and Safety	Management Measures for Corporate Environmental Compliance Assessment	GRI 307: Environmental Compliance
Employee Attendance and Leave Management Measures  GRI 401: Employment  Management Measures for Employee Welfare Fees  GRI 401: Employment  GRI 401: Employment  GRI 403: Occupational Health and Safety  Management Measures for Occupational Health and Safety Performance  Monitoring and Compliance Evaluation  GRI 403: Occupational Health and Safety  Management Measures  GRI 403: Occupational Health and Safety  Management Measures for All-Staff Work Safety Responsibility System  GRI 403: Occupational Health and Safety  Measures for the Management of Rewards and Punishments for Work Safety  GRI 403: Occupational Health and Safety	Employee Recruitment Management Measures	GRI 401: Employment
Management Measures for Employee Welfare Fees  GRI 401: Employment  Management Measures for Occupational Health and Safety Performance Monitoring and Compliance Evaluation  GRI 403: Occupational Health and Safety  Work Safety Management Measures  GRI 403: Occupational Health and Safety  Management Measures for All-Staff Work Safety Responsibility System  GRI 403: Occupational Health and Safety  Measures for the Management of Rewards and Punishments for Work Safety  GRI 403: Occupational Health and Safety	Labor Contract Management Measures	GRI 401: Employment
Management Measures for Occupational Health and Safety Performance Monitoring and Compliance Evaluation  GRI 403: Occupational Health and Safety  Work Safety Management Measures  GRI 403: Occupational Health and Safety  Management Measures for All-Staff Work Safety Responsibility System  GRI 403: Occupational Health and Safety  Measures for the Management of Rewards and Punishments for Work Safety  GRI 403: Occupational Health and Safety	Employee Attendance and Leave Management Measures	GRI 401: Employment
Monitoring and Compliance Evaluation  Work Safety Management Measures  GRI 403: Occupational Health and Safety  Management Measures for All-Staff Work Safety Responsibility System  GRI 403: Occupational Health and Safety  Measures for the Management of Rewards and Punishments for Work Safety  GRI 403: Occupational Health and Safety  GRI 403: Occupational Health and Safety	Management Measures for Employee Welfare Fees	GRI 401: Employment
Management Measures for All-Staff Work Safety Responsibility System  GRI 403: Occupational Health and Safety  Measures for the Management of Rewards and Punishments for Work Safety  GRI 403: Occupational Health and Safety		GRI 403: Occupational Health and Safety
Measures for the Management of Rewards and Punishments for Work Safety  GRI 403: Occupational Health and Safety	Work Safety Management Measures	GRI 403: Occupational Health and Safety
	Management Measures for All-Staff Work Safety Responsibility System	GRI 403: Occupational Health and Safety
Employee Education and Training Management Measures  GRI 404: Training and Education	Measures for the Management of Rewards and Punishments for Work Safety	GRI 403: Occupational Health and Safety
	Employee Education and Training Management Measures	GRI 404: Training and Education
Safety Education and Training Management System  GRI 404: Training and Education	Safety Education and Training Management System	GRI 404: Training and Education

## **Indicator Index List**

Report contents		Self-Regulatory Guidelines No. 17 for Companies Listed on Shenzhen Stock Exchange - Sustainability Report (for Trial Implementation)	Reference Index System on ESG Reports for Listed Companies Controlled by Centrally Administered State-owned Enterprises (SOEs)	GRI Standards (2021)
About This Repo	ort	Article 4 Article 6	Basic Information About the Company and Reports	GRI 2-2/GRI 2-3/GRI 2-14
Message from th	ne Board of Directors	1	/	/
About HBEG		/	Basic Information About the Company and Reports	GRI 2-1/GRI 2-6
Key Performanc	е	/	/	GRI 201-1
Contribution to t	the U.N. Sustainable pals (SDGs)	/	/	/
Materiality Asse	ssment on Topics	Article 5 Article 9 Article 52 Article 53	ESG Risks and Opportunities Communication with Stakeholders Evaluation of material topic	GRI 2-14/GRI 2-29 GRI 3-1/GRI 3-3/G201-2
Communication	with Stakeholders	Article 9 Article 53	Communication with Stakeholders	GRI 2-16/GRI 2-26 GRI 2-29
ESG Governance	2	Article 9 Article 12	ESG Governance	GRI 2-9/GRI 2-10 GRI 2-12/GRI 2-13 GRI 2-14/GRI 2-17 GRI 2-18/GRI 2-22
	Fulfilling Responsibilities Supply Assurance	1	S.4.4	/
Special Topic II: Through Green I	Driving Transformation Development	Article 20 Article 27 Article 28 Article 35	E.5.1/E.5.4/S.4.4	GRI 2-6
Special Topic III: Through Techno	Empowering the Future	Article 42 Article 43	S.2.3/S.4.4	GRI 302-4
	Environmental Management	Article 33	E.5.5/E.5.6	1
	Combating Climate Change	Articles 21 to 28	E.3.1/E.3.2/E.3.3 E.3.4/E.5.4	GRI 201-2/GRI 305-1 GRI 305-2/GRI 305-5 GRI 305-7
Environmental	Pollutant Emissions and Waste Disposal	Article 30 Article 31	E.2.1/E.2.2/E.2.3	GRI 303-2/GRI 303-4 GRI 306-1/GRI 306-2 GRI 306-3/GRI 306-4 GRI 306-5
	Ecosystem and Biodiversity Protection	Article 32	E.4.1	GRI 304-2 /GRI 304-3
	Resource Utilization and Circular Economy	Article 35 Article 36 Article 37	E.1.1/E.1.3 E.5.2/E.5.3	GRI 302-1/GRI 302-3 GRI 302-4/GRI 303-1 GRI 303-3/GRI 303-5 GRI 305-5

Rep	oort contents	Self-Regulatory Guidelines No. 17 for Companies Listed on Shenzhen Stock Exchange - Sustainability Report (for Trial Implementation)	Reference Index System on ESG Reports for Listed Companies Controlled by Centrally Administered State-owned Enterprises (SOEs)	GRI Standards (2021)
	Employees	Article 49 Article 50	S.1.1/S.1.2 S.1.4/S.1.5	GRI 2-7/GRI 2-8/GRI 2-30 GRI 201-3/GRI 401-1 GRI 401-2/GRI 401-3 GRI 404-1/GRI 404-2 GRI 405-1/GRI 406-1
Social	Work Safety and Occupational Health	Article 50	S.1.3/S.2.1	GRI 403-2/GRI 403-3 GRI 403-5/GRI 403-6 GRI 403-7/GRI 403-8 GRI 403-9/GRI 403-10 GRI 416-1/GRI 416-2
	Social Responsibility and Contribution	Article 39 Article 40	S.4.2/S.4.3/S.4.4	GRI 203-1/GRI 203-2
	Suppliers and Customers	Article 45 Article 46 Article 47 Article 48	S.2.1/S.2.2 S.3.1/S.3.2	GRI 308-1/GRI 308-2 GRI 2-26/GRI 2-29
	State-Owned Enterprise (SOE) Reform	1	/	1
Governance	Corporate Governance	Article 18 Article 51	G.1.1/G.1.2 G.1.3/G.2.1 G.3.2/G.5.1/G.5.2	GRI 2-9/GRI 2-10 GRI 2-11/GRI 2-12 GRI 2-13/GRI 2-17 GRI 2-18/GRI 2-19 GRI 2-20/GRI 2-27
	Business Conduct	Article 55 Article 56	G.2.2/G.2.3	GRI 205-2/GRI 205-3
	Information Disclosure and Investor Relations	Article 53	G.3.1/G.3.3 G.4.1/G.4.2	GRI 2-29
Prospects in 2025		1	1	/
Appendix		Article 57	/	1

## **Directory of Main Companies**

S/N	Full name	Abbreviation
1	Hubei Qingjiang Hydropower Development Co., Ltd.	Qingjiang Company
2	Hubei Energy Group Ezhou Power Generation Company, Ltd.	Ezhou Power Generation Company Ezhou Power Plant
3	Hubei Province Natural Gas Development Co, Ltd.	Hubei Natural Gas Company
4	Hubei Province Natural Gas Development & Sales Co., Ltd.	Natural Gas Sales Company
5	Hubei Province Coal Investment & Developing Co., Ltd.	Hubei Coal Investment Company
6	Hubei Energy Group Renewables Development Co., Ltd.	Hubei Renewables Company
7	Hubei Energy Group Loushui Hydropower Co., Ltd.	Loushui Hydropower Company
8	Hubei Energy Integrated Energy Investment Co., Ltd.	Hubei Integrated Energy Company
9	Xinjiang Chuxing Energy Development Co., Ltd.	Xinjiang Chuxing Company Chuxing Power Plant
10	Hubei Energy Group Power Sales Co., Ltd.	Hubei Power Sales Company
11	Hubei Energy Group Northwest Renewables Development Co., Ltd.	Northwest Renewables Company
12	Hubei Energy Group Xiangyang Yicheng Power Generation Co., Ltd.	Xiangyang Yicheng Power Generation Company Yicheng Power Plant
13	Hubei Energy Group Hanjiang River Energy Development Co., Ltd.	Hanjiang River Energy Company
14	Hubei Energy Group Luotian Pingtanyuan Pumped Storage Co., Ltd.	Pingtanyuan Pumped Storage Company
15	Three Gorges Group (Yingkou) Energy Investment Co., Ltd.	Yingkou Energy Investment Company
16	Hubei Energy Group Nanzhang Zhangjiaping Pumped Storage Co., Ltd.	Zhangjiaping Company
17	Hubei Energy Group Jiangling Power Generation Co., Ltd.	Jiangling Power Generation Company
18	Hubei Energy International Investment (HK) Co., Ltd.	Hubei Energy Hong Kong Company
19	Hubei Energy Group Shuanghe Renewables Development Co., Ltd.	Shuanghe Renewables Company

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## Feedback

there any information in this Report that you are concerned about but do not find in the report? If any, write it down what you are concerbout.	rned
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