華能國際電力股份有限公司
Huaneng Power International, Inc.

STOCK CODE : 902

2024 Annual Report

30th ANNIVERSARY

POWERING A BRIGHTER TOMORROW

CONTENTS

COMPANY PROFILE

Huaneng Power International, Inc. (the "Company" or "Huaneng Power") and its subsidiaries are mainly engaged in developing, constructing, operating and managing power plants throughout China. The Company is one of the China's largest listed power generation companies, and is the first power generation company in China to list in New York, Hong Kong and Shanghai simultaneously. As at 31 December 2024, the Company has controlled installed capacity of 145,125 MW and low carbon clean energy installed capacity accounted for 35.82%. The Company's domestic power plants are located in 26 provinces, autonomous regions and municipalities. The Company wholly owns a power company in Singapore and invests in a power company in Pakistan.

The Company was incorporated on 30 June 1994. It completed its initial global public offering of 1,250,000,000 overseas listed foreign shares ("foreign shares") in October 1994, which were listed on the New York Stock Exchange (Stock Code: HNP*) in the United States by issuing 31,250,000 American Depository Shares ("ADS"). In January 1998, the foreign shares of the Company were listed on The Stock Exchange of Hong Kong Limited (the "Hong Kong Stock Exchange") by way of introduction (Stock Code: 902). Subsequently, in March 1998, the Company successfully completed a global placing of 250,000,000 foreign shares along with a private placing of 400,000,000 domestic shares. In November 2001, the Company successfully completed the issue of 350,000,000 A Shares (Stock Code: 600011) in the People's Republic of China ("China", "PRC"), of which 250,000,000 domestic public shares were listed on the Shanghai Stock Exchange. In December 2010, the Company completed the nonpublic issuance of 1,500,000,000 A Shares and 500,000,000 H Shares. In November 2014, the Company completed the nonpublic issuance of 365,000,000 H Shares. In November 2015, the Company completed the non-public issuance of 780,000,000 H Shares. In October 2018, the Company completed the non-public issuance of 498 million A shares. Currently, the total share capital of the Company amounts to approximately 15.7 billion shares. The Company's direct and ultimate controlling shareholder are Huaneng International Power Development Corporation ("HIPDC") and China Huaneng Group Co., Ltd. ("Huaneng Group"), respectively.

The core business of the Company is, by making use of modern technology and equipment and also financial resources available domestically and internationally, to develop, construct and operate power plants. As a power generation enterprise, the Company has been insisting on innovations in technologies, structure, and management since its incorporation. On aspects regarding the advancement in power technologies and construction and management of power plants, the Company has been the pioneer and has created various milestones within the domestic power industry, which facilitated the great leap development of the power business and technological advancement of the power station equipment manufacturing industry in China, and also significantly contributed to the improvement of technical and management standards of the domestic power generation enterprises. The Company was the first to introduce a 600 MW supercritical generating unit into China and we also started operating the first domestically built single 1,000 MW ultra-supercritical coal-fired generating unit, and the first digitalized 1,000 MW ultra-supercritical coal-fired generating unit in China. The Company completed the construction of the first 1,000 MW generating unit in the world using sea water desulphurization facilities and 660 MW high-efficiency ultrasupercritical coal-fired unit with the highest parameters in China, finished the construction of the first double reheat ultra-supercritical coal-fired generating unit, and developed the technology for synergistic treatment of flue gas of coal-fired power plants, which was widely applied in environmental protection renovation and newly-constructed projects. The Company's self-developed safe and intelligent DCS/DEH integrated distributed control system, the first set of major technical equipment completely produced in China, was put into operation in a 1,000 MW ultra-supercritical high-efficiency double reheat generating unit, and has been widely applied. The Company strive to promote the construction of offshore wind power bases in the eastern coastal areas, and create advantages in the development of offshore wind power clusters. The Company also completed the first major energy project in the China-Pakistan Economic Corridor, creating China's best overseas power construction project in terms of safety, quality and speed. The technical and economic indicators as well as the overall manpower efficiency of the Company have been remaining at the forefront in China's power industry. The Company constantly optimizes the power structure and regional distribution, and accelerates development of new energy while consolidating its leading position in conventional energy, aiming to enhance industrial synergy effect. Furthermore, it has expanded the service range for power distribution and sales to achieve an overall improvement in operation, quality and corporate vigour.

Throughout the years, with dedicated efforts, the Company has expanded successively with steady growth in competitive strengths. The success of the Company is attributable to its various advantages, including advantages in scale and equipment, advantages in positive transformation to low carbon, clean energy, advantages in scientific and technological innovation and environmental protection, advantages in geographic layout of power plants, sound corporate governance structure, advantages in market reputation, extensive experience in the capital markets, advantages in overseas development, staff with high calibre and professional management as well as strong support from major shareholders.

The objectives of the Company are: as a power company, devoted to providing sufficient, reliable and eco-friendly energy to the community; as a listed company, devoted to creating long-term, stable and increasing returns for shareholders; and as a first-class power producer, devoted to having excellency in operation, becoming a leading power enterprise in China and an advanced enterprise in the international market.

* The ADS of the Company was delisted from New York Stock Exchange on 7 July 2022, Eastern Standard Time.

DISTRIBUTION OF POWER PLANTS OF THE COMPANY

CHINA NETWORK

Heilongjiang
4,654

Jilin
4,548

The controlled installed capacity of the Company as at 31 December 2024 was

145,125MW,

distributed in areas as depicted in the chart (Unit: MW)

LEGENDS

Wind-power

PV Power

Coal-fired

Combined Cycle

Hydro-power

Biomass power

Liaoning 7,164	Inner Mongolia 288	Hebei 5,580	Gansu 3,897	Ningxia 20
Beijing 2,766	Tianjin 1,747	Shanxi 4,955	Shandong 23,342	Henan 9,090
Jiangsu 13,897	Shanghai 5,696	Chongqing 3,935	Zhejiang 7,690	Hubei 5,678
Hunan 3,639	Jiangxi 8,420	Anhui 3,567	Fujian 4,438	Guangdong 7,221
Guangxi 754	Yunnan 4,730	Guizhou 1,416	Hainan 3,987	

OVERSEAS NETWORK

Singapore
2,009

Total 145,125

MAJOR CORPORATE EVENTS IN 2024

JAN

- The Company announced the domestic on-grid electricity for the whole year of 2023. The domestic on-grid electricity sold by the Company for the whole year recorded 447,856 million kWh, representing a year-on-year increase of 5.33%.

FEB

- The Company was awarded the "Outstanding Issuer of Real Estate Holding ABS Business in 2023" and the "Outstanding Issuer of SSE's Asset Securitization Business in 2023" by the Shanghai Stock Exchange.

MAR

- The Company announced its annual operating results for 2023. According to the China Accounting Standards, the net profit attributable to shareholders of the Company was approximately RMB8,446 million, representing a year-on-year increase of RMB15,833 million or 214.33%

- The Company held the promotion conference for its annual results for 2023 in Beijing headquarters and Hong Kong respectively, with more than 120 people (including domestic and foreign analysts from securities companies and fund managers) attending the conference.

APR

- The Company announced the domestic on-grid electricity for the first quarter in 2024. The Company achieved domestic ongrid electricity sold of 113.036 billion kWh in the first quarter, representing a year-on-year increase of 5.63%.

- The Company announced its results for the first quarter of 2024. According to the China Accounting Standards, the net profit attributable to shareholders of the Company was RMB4,596 million, representing a year-on-year increase of RMB2,346 million or 104.25%.

- The Company held a global investor telephone conference for its results for the first quarter of 2024 with more than 190 people (including domestic and foreign analysts from securities companies and fund managers) attending the conference.

- The Company's ESG practice case won the "Excellent Case of Social Responsibility and ESG of Power Enterprises" issued by China Electricity Council.

JUN

- The Company held the 2023 Annual General Meeting, and considered and approved nine proposals, including the report from the Board of Directors of the Company for 2023.

- The Company won the "Outstanding Board of Directors" of the 19th "Golden Prize of Round Table" of Chinese Boards of Listed Companies.

JUL

- The Company announced the domestic on-grid electricity in the first half of 2024. The Company achieved domestic ongrid electricity sold of 210.678 billion kWh in the first half of the year, representing a year-on-year decrease of 0.22%.

- The Company announced its interim results for 2024. According to the China Accounting Standards, the net profit attributable to shareholders of the Company was RMB7,454 million, representing a year-on-year increase of RMB1,146 million or 18.16%.

- The Company held a global investor telephone conference for its interim results for the year of 2024 with more than 300 people (including domestic and foreign analysts from securities companies, fund managers and individual investors) attending the conference.

- Huaneng Power's 18 MW super-large wind turbine unit started power generation in Yingkou, Liaoning Province, laying the foundation for subsequent large-capacity offshore wind turbines to be installed and applied in large quantities.

- The first set of validation project of Huaneng COAP technology (Integrated Pollutant Removal Technology by Cryogenic Method) successfully passed 168 hours of trial operation at Huaneng Linyi Power Plant belonging to the Company, marking the commissioning of the first set of international near-zero emission project of integrated pollutant removal technology by cryogenic method. After the project is put into operation, the emission concentration of flue gas dust, sulfur dioxide and nitrogen oxides from the generating unit will be lower than 1 mg/Nm^3, which is better than the ultra-low emission standard, and has significant ecological, environmental and developmental benefits.

- The Company's Laiwu Power Generation Energy Infrastructure Investment Asset-Backed Special Plan and Jingmen Thermal Power Energy Infrastructure Investment Asset-Backed Special Plan won the Best REITs Product of the Year Award and the Most Innovative Real Estate ABS Product of the Year Award in the Eighth Real Estate Securitization and REITs Forum and the "Golden Diaspora Award" Competition respectively.

AUG

- The Company's 2023 H-share annual report was ranked 47th among the top 100 annual reports globally and 14th among the top 100 annual reports in the Asia Pacific region with a composite score of 99 at the LACP 2023 Vision Awards and was one of the top 50 Chinese-language reports, winning the Regional Silver Award for Best Shareholder Letter.

SEP

- The Company received an "A" grade rating for annual information disclosure of Shanghai Stock Exchange.

- The country's first modular molten salt energy storage project for thermal power units for peak and frequency regulation was successfully commercialized at Huaneng Dezhou Power Plant under the Company, marking a new breakthrough in coupling large-scale energy storage and enhancing the operational flexibility of thermal power units in China.

MAJOR CORPORATE EVENTS IN 2024

- The results of the 38th International ARC Annual Report Awards organized by MerComm, an American independent organization, were announced, indicating that the Company's 2023 H-share annual report won two awards, namely the Silver Award in the Power Company category and the Bronze Award in the Energy Company category for cover design.

- The Company's Tuas Power Project won the "Annual Overseas Case" awarded in the "2024 Phoenix Star Listed Company Awards" organized by Phoenix TV and Phoenix New Media.

OCT

- The Company announced the domestic on-grid electricity for the first three quarters of 2024. The Company achieved domestic on-grid electricity sold of 341.240 billion kWh for the first three quarters of the year, representing a year-on-year increase of 1.14%.

- The Company announced its results for the first three quarters of 2024. According to the China Accounting Standards, the net profit attributable to shareholders of the Company was approximately RMB10.413 billion, representing a year-on-year decrease of RMB2.151 billion or 17.12%.

- The Company held a global investor telephone conference for its results for the third quarter of 2024 with more than 110 people (including domestic and foreign analysts from securities companies, fund managers and individual investors) attending the conference.

- The No. 2 commercial unit of Huaneng Suzhou Gas Turbine Innovation and Development Demonstration Project under the Company has successfully passed 96 hours of full-load test operation, marking that the first batch of the first set of domestically produced combustion turbines in China has successfully entered into the demonstration and application stage, which is of great significance for promoting the localization and industrialization of key technologies and equipment systems of China's gas turbines.

- The Secretary of the Board of Directors of the Company was awarded the honor of "Sunshine Secretary of Listed Companies in China" by the Securities Times.

- The Company's ESG practice case won the "ESG Excellent Practice in 2024" award issued by China Media Group (CMG) and China Enterprise Reform and Development Society (CERDS), and was selected as one of the "ESG Excellence Practice Report in 2024".

NOV

- The Company was awarded the "Golden Information Disclosure Award" in the 26th Golden Bull Award for Listed Companies organized by China Securities Journal.

- The Board of Directors was awarded the honor of "Best Practice Case of the Board of Listed Companies in 2024" by the China Association for Public Companies.

- For the second consecutive year, the Company was selected by the State-owned Assets Supervision and Administration Commission (SASAC) as a member of the "ESG-Pioneer 100 Index of Listed Companies of Central Enterprises (2024)", and was included in the "Blue Book on Environmental, Social and Governance (ESG) of Listed Companies of Central Enterprises".

- For the third consecutive year, the Company's ESG practice case won the "2024 Best Sustainability Practice Case of Listed Companies" by China Association for Public Companies (CAPCO).

DEC

- The Company held the 2024 first extraordinary general meeting, and considered and approved three proposals, including the proposal regarding the continuing connected transactions between the Company and Huaneng Group for 2025.

- The world's largest compressed air energy storage power plant – Huaneng Jintan Salt Cave compressed air energy storage and power generation phase II project belonging to the Company officially started construction in Changzhou, Jiangsu Province. Project planning and construction of two sets of 350,000 kilowatts of non-compensated combustion of compressed air energy storage units, salt caverns with a total volume of 1.2 million cubic meters, is currently the largest single-unit capacity, highest total storage capacity, and most energy-efficient compressed air energy storage power station worldwide. After the completion of the project can effectively improve the regional energy structure, enhance the local power grid regulation capacity and new energy consumption capacity, promote the efficient use of renewable energy, and provide strong support for the stable operation of the power grid.

- The No.1 demonstration unit (119.66 MW) of Huaneng Suzhou Gas Turbine Innovation and Development Demonstration Project, which belongs to the Company, has passed 96 hours of continuous full-load test operation and has been successfully put into operation. The No.1 demonstration unit is the first F-class (80 MW) combustion turbine project among the first batch of combustion turbine demonstration projects of the National Energy Administration to be put into operation, marking a major breakthrough in the field of equipment and technology of domestically produced heavy-duty combustion turbines, and it has an important demonstration and leading role.

- The Company was awarded the "Excellent Practice of 2023 Annual Report Presentation for Listed Companies" by China Listed Companies Association.

- The Company's Tongyu Power New Energy Infrastructure Investment Carbon Neutral Green Asset Support Special Program won the "Green Financial Product Service Innovation Award" issued by the Shenzhen Green Finance Association

- Huaneng Power – Jiangsu Company New Energy Infrastructure Investment Blue Carbon Neutrality Asset-Backed Special Plan was awarded the 2024 "Frontier Award" for Best REITs of the Year at the 9th Real Estate Securitization Cooperation and Development Conference. Huaneng Power – Guangdong Company New Energy Infrastructure Investment Blue Carbon Neutrality Asset-Backed Special Plan was awarded both the 2024 "Frontier Award" for Best REITs of the Year and the Outstanding Green ABS/ABN of the Year at the 9th Real Estate Securitization Cooperation and Development Conference.

- The secretary of the Board of Directors of the Company was awarded the 5A Rating of "Performance Assessment of the Secretary of the Board of Listed Companies in 2024" by the China Association for Public Companies, and won the "Golden Crow Award in 2024" for the third consecutive year of "5A" rating, and the team of directors of the Company was awarded the honor of "Best Practice of the Board of Listed Companies in 2024".

- The Company won the "Excellent Listed Company with High Quality Development" in the 14th China Securities"Golden Bauhinia"selection activity. Mr. Wang Kui, Chairman of the Board of Directors of the Company, was awarded the "Outstanding Entrepreneur of the Year 2024".

- The Company's ESG practice case was honored with the "Outstanding ESG Sustainable Development Case" by the China Enterprise Reform and Development Society (CERDS) and China Comment.

FINANCIAL HIGHLIGHTS

(Amounts expressed in thousands of RMB, except per share data)

CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

	YEAR ENDED 31 DECEMBER				
	2020	2021 (Restated) (Note 1)	2022	2023	**2024**
OPERATING REVENUE	169,446,338	205,079,497	246,724,789	254,396,695	**245,550,923**
Profit/(Loss) before Income Tax Expense	4,773,736	(14,863,594)	(10,813,957)	12,477,142	**17,821,286**
Income Tax Expense	(2,163,173)	1,929,755	(158,658)	(3,707,733)	**(3,815,093)**
Profit/(Loss) after Income Tax Expense	2,610,563	(12,933,839)	(10,972,615)	8,769,409	**14,006,193**
Attributable To:					
– Equity Holders of the Company	2,377,851	(10,377,939)	(8,026,233)	8,357,460	**10,184,633**
– Non-Controlling Interests	232,712	(2,555,900)	(2,946,382)	411,949	**3,821,560**
Basic Earnings/(Losses) Per Share (RMB/Share)	0.04	(0.80)	(0.65)	0.35	**0.46**
Diluted Earnings/(Losses) Per Share (RMB/Share)	0.04	(0.80)	(0.65)	0.35	**0.46**

	AS AT 31 DECEMBER				
	2020	2021 (Restated) (Note 1)	2022	2023	**2024**
Total assets	449,904,658	501,049,410	512,221,773	550,316,013	**595,576,880**
Total liabilities	298,288,460	367,213,210	376,905,714	370,961,535	**384,997,834**
Net assets	151,616,198	133,836,200	135,316,059	179,354,478	**210,579,046**
Equity attributable to equity holders of the Company	129,845,923	113,327,155	115,664,522	138,763,115	**143,794,329**
Non-controlling interests	21,770,275	20,509,045	19,651,537	40,591,363	**66,784,717**

Notes:

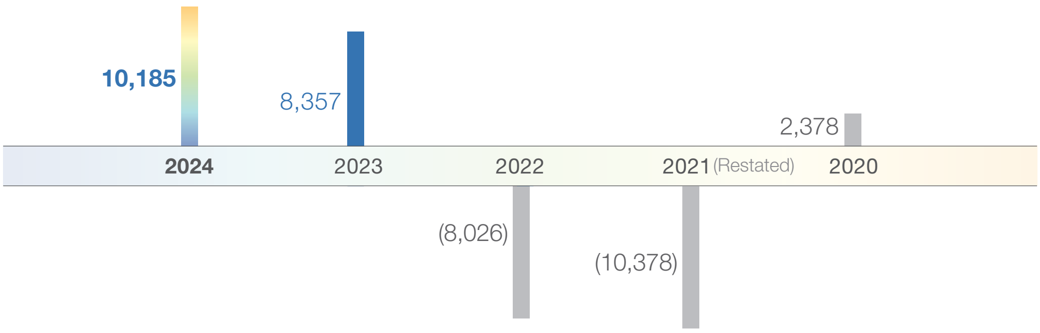
1. The Company and its subsidiaries have adopted Amendments to IAS 16, *Property, Plant and Equipment-Proceeds before Intended Use*, with the date of initial application of 1 January 2021. The standard is applied retrospectively with the cumulative effect of initial adoption as an adjustment to the opening balance of retained earnings at 1 January 2021, and the comparative information for the year ended 31 December 2021 was restated.

2. The results for the years ended 31 December 2020, 2021 and 2022 are derived from the historical financial statements of the Company. The results for the years ended 31 December 2023 and 2024 are set out on pages 121 to 123. All such information is extracted from the financial statements prepared under International Financial Reporting Standard ("**IFRS**") accounting standards.

3. The consolidated statements of financial position as at 31 December 2020, 2021 and 2022 are derived from the historical financial statements of the Company. The consolidated statements of financial position as at 31 December 2023 and 2024 are set out on pages 124 to 126. All such information is extracted from the financial statements prepared under IFRS accounting standards.

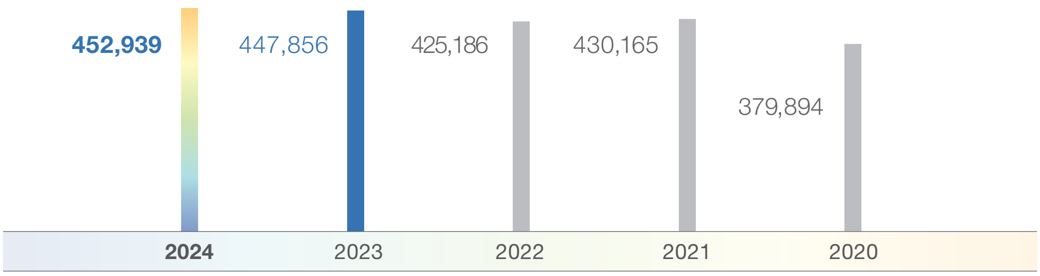
PROFIT/(LOSS) ATTRIBUTABLE TO EQUITY HOLDERS OF THE COMPANY UNDER IFRS ACCOUNTING STANDARDS

(RMB Million)
For the years ended 31 December



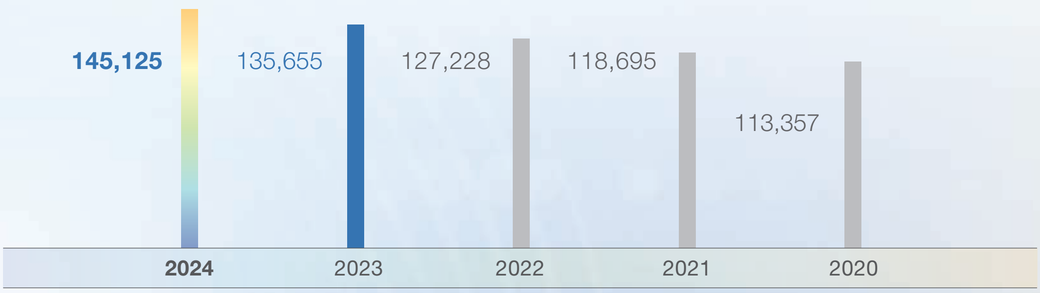
THE TOTAL ELECTRICITY SOLD BY THE DOMESTIC POWER PLANTS

(Million KWH)
For the years ended 31 December



CONTROLLED INSTALLED GENERATION CAPACITY

(MW)
As at 31 December



LETTER TO SHAREHOLDERS

WANG KUI
Chairman

The development objectives of Huaneng Power are:

as a power company, devoted to providing sufficient, reliable and eco-friendly energy to the community; as a listed company, devoted to creating long-term, stable and increasing returns for shareholders; and as a first-class power producer, devoted to having excellency in operation, becoming a leading power enterprise in China and an advanced enterprise in the international market.

TO ALL SHAREHOLDERS,

In 2024, in the face of the new situation of accelerated market-oriented reform of power, the Company adhered to the general principle of seeking progress while maintaining stability, promoting stability with progress, and establishing before breaking, and centered on the Company's annual operating tasks, proactively responded, deployed scientifically implemented in depth, and effectively fulfilled its responsibility of providing sufficient, reliable, and eco-friendly electric energy to the community. The overall safety production situation throughout the year was kept stable with remarkable results in quality and efficiency improvement. The transformation and development were further promoted, scientific and technological innovation was intensified, corporate governance was deepened, the brand image was upgraded, and the main tasks and objectives of the year were well completed. In 2024, the Company achieved consolidated operating revenue of RMB245.551 billion, representing a year-on-year decrease of 3.48%, and net profit attributable to the equity holders of the Company of RMB10.185 billion, representing a year-on-year increase of RMB1.827 billion or 21.86%. In accordance with the dividend policy in the Articles of Association of the Company, the Board of Directors of the Company proposed 2024 dividend to be a cash dividend of RMB0.27 (inclusive of tax) per share for all shares held by shareholders, and the distribution plan would be submitted to the 2024 Annual General Meeting of the Company for consideration.

The Company firmly adhered to the concept of safe development, and the safety guarantee ability was continuously improved. The Company has always regarded energy security and guaranteed supply as a major social responsibility, scientifically coordinated key tasks such as power marketing, fuel procurement, inventory management and fund guarantee, ensured stable and reliable power and heat supply throughout the year, and successfully completed the tasks of service guarantee during important periods of major events. The Company has carried out a three-year action to address the root causes of production safety, improved the safety management mechanism, deepened the implementation of safety responsibilities at all levels, ensured that the risks in various fields are controllable and under control, and that the safety situation is better than that of the previous years in general.

The Company adhered to taking the operation efficiency as the center, and achieved remarkable results in improving quality and efficiency. Based on the principle of maximizing the overall interests, the Company adhered to the overall planning of quantity and price, optimized the power marketing strategy in a timely manner, and strove to increase effective power generation. The Company deepened lean management of the whole fuel chain, proactively facilitated the entering into of medium and long-term thermal coal contracts, dynamically optimized the procurement strategy, and strictly controlled fuel procurement costs. The Company strengthened the management of overseas business, conducted in-depth analysis of the market and policy situation

LETTER TO SHAREHOLDERS

The overall safety production situation throughout the year was kept stable with remarkable results in quality and efficiency improvement. The transformation and development were further promoted, scientific and technological innovation was intensified, corporate governance was deepened, the brand image was upgraded.

The Company resolutely promotes the transformation of energy structure, and the pace of green development was accelerated. The Company focuses on participating in the construction of a new type of power system, green, low-carbon, clean, efficient development results are remarkable, new energy production scale hit a new high in recent years, low-carbon clean energy installed capacity accounted for more than 35%, new energy installed capacity accounted for more than 26%, are realized year-on-year substantial increase. The Company has intensified its offshore wind power development, with the Hainan Lingao Project achieving grid connection and the new project in Fujian making breakthroughs. The Company's offshore wind power map covers seven coastal provinces, with an installed power generation capacity of more than 5 million kilowatts.

The Company has further intensified its technological innovation efforts, achieving significant results in application and commercialization. It has actively laid out new industries, planned scientific and technological projects in the fields of combustion engine control, high-efficiency energy storage and deep-sea offshore platforms, and endeavored to cultivate and develop new productivity. In 2024, Huaneng 18MW ultra-large wind turbine was completed in Yingkou, Liaoning Province. The world's first low-temperature integrated near-zero pollutant emission system was put into operation at Huaneng Linyi Power Plant. A thousand-ton-scale pilot facility for carbon dioxide capture from coal-fired flue gas using low-temperature adsorption technology was put into operation at Huaneng Yueyang Power Plant, achieving efficient simultaneous removal of flue gas pollutants and carbon dioxide. The China's first molten salt thermal storage integrated with a million-kilowatt unit demonstration project for frequency modulation, and peak shaving, were commissioned at Huaneng Haimen Power Plant, which marked the first fully domestically produced and operational molten salt system control equipment in China. China's first set of flue-gas desulfurization slurry waste heat recovery and energy-saving system was put into operation at Huaneng Yangliuqing Power Plant.

The company has steadily enhanced its corporate governance standards, driving a renewed elevation of its brand image. The Company promoted the deepening and enhancement of reforms, "creating first-class", improving the quality of listed companies, value creation, and brand leadership as a whole, and ensured the implementation of key tasks. Improve the system of the Board of Directors and give full play to the excellent strategic leadership of the Directors and Supervisors, as well as the advantages of specialized and diversified decision-making to lead the Company's high-quality development. The Company completed the three-year action plan to improve the quality of listed companies with high quality, and achieved good results in implementing regulatory requirements, improving the quality of information disclosure, strengthening investor relations and deepening ESG management. We opened up communication channels with investors, restarted offline promotion roadshows, narrated the Company's brand story well, displayed the Company's good image, and won a number of awards and honors in information disclosure, annual report performance briefing, ESG management, etc., further enhancing the corporate image and brand value.

Looking forward to 2025, the Company will continue to accelerate the construction of a world-class enterprise, adhere to the general tone of seeking progress while maintaining stability, fully implement the new development concept, deepen and enhance risk control, value creativity, new development momentum and reform drive, conscientiously implement the regulatory requirements of the listed places, strengthen market value management with concrete measures, and endeavor to improve the quality of the listed companies and the returns to shareholders, and strive to create a new situation of the Company's high-quality development.

Being a responsible enterprise, the Company insists on supporting the continued enhancement of our corporate competitive edges through a responsible approach, insists on duly performing our operational responsibilities to provide our shareholders with long-term, stable and increasing returns, continues to perform our safety responsibilities, to be people-oriented and be focused on safety development for the sake of developing itself into an enterprise with the highest safety standard, continues to perform our environmental responsibilities by paying heed to people's livelihood and concerning clean development to ensure utilization of resources in an efficient and energy-saving manner, thus turning the Company into a "green corporation", continues to perform our social responsibilities by creating mutual benefits and win-win scenarios that are conducive to the harmonious development of the Company and its stakeholders, so that the Company may serve as an excellent corporate citizen.

WANG KUI
Chairman

Beijing, the PRC
25 March 2025

MANAGEMENT'S DISCUSSION AND ANALYSIS

The Company is primarily engaged in the development, construction, and operation of power plants across China and is one of the largest listed power generation companies in China. As of 31 December 2024, the Company had a controlled installed power generation capacity of 145,125 MW, with low-carbon clean energy generation–including natural gas power, hydropower, wind power, and solar power–accounting for 35.82% of the total installed capacity.

MANAGEMENT'S DISCUSSION AND ANALYSIS

MANAGEMENT'S DISCUSSION AND ANALYSIS

*(Prepared under International Financial Reporting Standard ("**IFRS**") Accounting Standards)*

General

The Company is primarily engaged in the development, construction, and operation of power plants across China and is one of the largest listed power generation companies in China. As of 31 December 2024, the Company had a controlled installed power generation capacity of 145,125 MW, with low-carbon clean energy generation–including natural gas power, hydropower, wind power, and solar power–accounting for 35.82% of the total installed capacity. The Company's power plants in China are widely distributed across 26 provinces, autonomous regions, and municipalities. Additionally, the Company wholly owns and operates a power company in Singapore and has invested in an operational power company in Pakistan.

For the year ended 31 December 2024, the Company recorded revenue of RMB245.551 billion, representing a 3.48% decrease compared to the previous year. The net profit attributable to equity holders of the Company was RMB10.185 billion, reflecting an increase of 21.86% from the previous year. This was mainly due to a reduction in domestic unit fuel costs, which contributed to increased profitability in thermal power, as well as the orderly expansion of the Company's renewable energy portfolio, leading to additional revenue and profit growth. Earnings per share were RMB0.46.

A. OPERATING RESULTS

1. 2024 operating results

The electricity sold by the Company's domestic power plants for the year ended 31 December 2024 is as follows (in 100 million kWh):

	Electricity Sold			
Types of generation/ Region	**October to December 2024**	**Year-on-Year Change**	**January to December 2024**	**Year-on-Year Change**
Coal-fired	911.74	-0.65%	3,692.78	-1.74%
Combined cycle	58.23	-13.62%	269.59	-2.70%
Wind-power	101.22	15.94%	369.52	16.07%
PV	42.43	47.22%	181.27	66.13%
Hydro-power	1.18	-15.88%	9.34	24.79%
Biomass power	2.18	5.10%	6.88	-19.15%
Heilongjiang Province	33.48	-5.11%	128.76	-3.22%
Coal-fired	25.20	-4.74%	99.03	-4.18%
Wind-power	7.16	-6.64%	25.73	2.22%
PV	0.82	24.62%	2.94	0.01%
Biomass power	0.29	-40.85%	1.06	-32.71%

Types of generation/ Region	Electricity Sold October to December 2024	Year-on-Year Change	January to December 2024	Year-on-Year Change
Jilin Province	34.77	3.14%	121.55	-4.03%
Coal-fired	19.76	-9.98%	74.82	-7.36%
Wind-power	13.54	27.41%	41.56	3.66%
Hydro-power	0.06	321.24%	0.75	48.68%
PV	0.58	4.30%	2.45	0.97%
Biomass power	0.82	47.49%	1.96	-31.45%
Liaoning Province	41.02	-14.53%	164.54	-3.07%
Coal-fired	32.82	-18.26%	137.12	-6.25%
Wind-power	7.72	5.70%	24.96	18.27%
Hydro-power	0.01	-73.76%	0.16	-2.04%
PV	0.46	-3.68%	2.29	4.04%
Inner Mongolia	2.14	19.17%	7.31	-5.68%
Wind-power	2.11	17.98%	7.27	-6.19%
PV	0.02	—	0.04	—
Hebei Province	32.07	-4.00%	132.08	6.52%
Coal-fired	25.78	-7.67%	105.06	-0.07%
Wind-power	1.47	-9.20%	4.86	-20.46%
PV	4.82	24.68%	22.16	73.68%
Gansu Province	31.86	-4.26%	118.77	-9.72%
Coal-fired	28.72	4.46%	98.58	-6.91%
Wind-power	3.14	-45.67%	20.18	-21.31%
Ningxia	0.03	-10.25%	0.20	-1.73%
PV	0.03	-10.25%	0.20	-1.73%
Beijing	17.03	-20.87%	74.83	-8.87%
Coal-fired	0.27	-75.12%	1.40	-72.84%
Combined cycle	16.76	-17.99%	73.43	-4.60%
Tianjin	13.79	-1.14%	57.08	-2.79%
Coal-fired	10.83	-4.67%	44.34	-10.05%
Combined cycle	2.88	12.99%	12.37	34.49%
PV	0.08	101.81%	0.37	64.65%
Shanxi Province	27.84	1.88%	99.47	7.85%
Coal-fired	14.02	-4.42%	56.85	4.20%
Combined cycle	8.28	4.90%	19.66	-4.21%
Wind-power	1.64	-20.89%	5.98	-14.21%
PV	3.90	44.87%	16.98	66.82%
Shandong Province	186.48	1.24%	797.05	-0.91%
Coal-fired	172.12	-0.20%	737.68	-3.08%
Wind-power	8.41	24.19%	32.85	37.81%
PV	4.88	24.30%	22.67	47.66%
Biomass power	1.07	4.29%	3.86	-5.25%
Henan Province	56.36	3.25%	243.37	4.94%
Coal-fired	46.90	4.89%	199.39	5.26%
Combined cycle	0.04	-38.34%	1.45	-5.46%
Wind-power	7.65	-10.83%	35.32	1.61%
PV	1.78	43.72%	7.21	16.40%

MANAGEMENT'S DISCUSSION AND ANALYSIS

Types of generation/ Region	Electricity Sold October to December 2024	Year-on-Year Change	January to December 2024	Year-on-Year Change
Jiangsu Province	104.95	3.35%	448.64	4.92%
Coal-fired	75.27	0.58%	325.36	2.36%
Combined cycle	12.59	1.20%	54.92	0.70%
Wind-power	12.90	5.01%	50.52	6.99%
PV	4.19	111.04%	17.84	123.69%
Shanghai	49.78	3.51%	212.95	5.22%
Coal-fired	47.84	6.36%	196.07	4.30%
Combined cycle	1.79	-40.75%	16.23	16.25%
PV	0.15	55.64%	0.65	44.25%
Chongqing	37.70	18.28%	154.63	6.84%
Coal-fired	32.66	34.33%	125.63	10.86%
Combined cycle	3.89	-38.27%	23.59	-11.14%
Wind-power	1.12	-9.84%	5.22	8.12%
PV	0.02	112.58%	0.19	475.27%
Zhejiang Province	94.42	1.71%	358.45	5.68%
Coal-fired	77.72	-5.90%	305.87	0.10%
Combined cycle	1.89	29.27%	9.90	20.24%
Wind-power	13.82	71.91%	38.41	70.38%
PV	1.00	33.60%	4.27	50.10%
Hubei Province	45.76	26.93%	164.98	2.46%
Coal-fired	39.95	26.71%	138.16	-2.59%
Wind-power	1.62	-11.85%	7.08	-3.33%
Hydro-power	0.12	-76.72%	2.14	-23.86%
PV	4.07	87.24%	17.60	94.48%
Hunan Province	24.12	13.36%	89.23	-11.51%
Coal-fired	21.01	14.17%	73.32	-16.00%
Wind-power	1.83	4.97%	8.72	6.23%
Hydro-power	0.40	-10.62%	3.36	33.14%
PV	0.87	28.84%	3.83	35.96%
Jiangxi Province	73.15	3.41%	296.39	0.93%
Coal-fired	65.16	-1.25%	266.38	-2.80%
Wind-power	2.33	18.58%	9.98	4.36%
PV	5.66	103.20%	20.03	99.37%
Anhui Province	19.10	-4.75%	86.15	9.29%
Coal-fired	12.74	-13.74%	58.76	0.30%
Wind-power	3.10	13.82%	11.32	2.25%
Hydro-power	—	-100.00%	1.05	42.60%
PV	3.25	32.39%	15.02	78.16%
Fujian Province	46.47	0.42%	187.67	9.70%
Coal-fired	45.60	-0.39%	184.19	8.89%
PV	0.87	75.82%	3.47	80.61%

Types of generation/ Region	Electricity Sold October to December 2024	Year-on-Year Change	January to December 2024	Year-on-Year Change
Guangdong Province	73.30	8.71%	289.43	-2.30%
Coal-fired	57.97	-2.43%	235.64	-7.82%
Combined cycle	7.59	3.34%	34.25	-12.10%
Wind-power	6.92	9,653.37%	16.90	23,735.04%
PV	0.82	38.18%	2.64	67.64%
Guangxi	2.67	5.91%	10.72	5.44%
Combined cycle	0.75	2.41%	3.07	-5.23%
Wind-power	1.54	-7.54%	6.49	-4.54%
PV	0.39	200.58%	1.16	794.35%
Yunnan Province	36.98	-21.06%	141.38	-5.37%
Coal-fired	33.88	-22.58%	125.86	-11.19%
Wind-power	2.77	3.66%	13.73	114.63%
Hydro-power	—	—	0.13	—
PV	0.33	-20.11%	1.65	29.78%
Guizhou Province	2.67	4.68%	12.87	32.72%
Wind-power	0.31	-35.51%	1.95	-0.49%
PV	2.36	14.13%	10.92	41.12%
Hainan Province	29.05	-1.89%	130.90	-0.40%
Coal-fired	25.52	10.39%	103.25	-0.77%
Combined cycle	1.77	-65.69%	20.73	-11.27%
Wind-power	0.10	-70.56%	0.49	-46.85%
Hydro-power	0.59	107.20%	1.74	136.08%
PV	1.07	53.70%	4.69	99.84%
Total	**1,116.99**	**1.11%**	**4,529.39**	**1.13%**

MANAGEMENT'S DISCUSSION AND ANALYSIS

The primary reason for the increase in the Company's electricity sales is its active promotion of green and low-carbon development. This includes the continued growth in the installed capacity of wind and photovoltaic power ("**PV**"), resulting in a significant year-on-year increase in the sales of electricity generated from new energy sources. At the same time, factors such as the nationwide growth of new energy electricity prompted the Company to optimize the operating models of its thermal power units, achieving more efficient electricity generation while ensuring a sufficient supply of electricity and heat. As a result, the sales of electricity generated from the thermal power units experienced a slight decrease compared to the previous year.

In 2024, Tuas Power Limited, a wholly-owned subsidiary of the Company, achieved a market share of 19.2% in Singapore's total power generation, reflecting a decrease of 1.2 percentage points compared to the same period of last year.

In 2024, the Company's average on-grid electricity tariff for domestic power plants, including tax, was RMB494.26 per MWh, representing a 2.85% decrease from the previous year. The average settlement electricity price for Sino-Singapore Power was RMB1,184.24 per MWh, reflecting a 13.67% decrease compared to the previous year.

In terms of fuel costs, the unit fuel cost for electricity sold by the Company's domestic thermal power plants was RMB300.31 per MWh, reflecting a 8.00% decrease compared to the previous year.

As a result of these factors, the Company's revenue for 2024 amounted to RMB245.551 billion, representing a 3.48% decrease from RMB254.397 billion in the previous year. Operating costs and expenses totaled RMB219.545 billion, down 6.26% from RMB234.201 billion in the previous year. Profit before tax was RMB17.821 billion, marking a 42.83% increase from RMB12.477 billion in the previous year.

2. Comparative analysis of operating results

2.1 Operating revenue and tax and levies on operations

For the year ended 31 December 2024, the consolidated operating revenue of the Company and its subsidiaries amounted to RMB245.551 billion, representing a decrease of 3.48% from RMB254.397 billion for the year ended 31 December 2023.

The operating revenue from domestic operations decrease by RMB2.942 billion over the same period of last year, mainly due to the year-on-year decrease in domestic electricity tariffs. The operating revenue from domestic operations generated from the newly acquired entities and newly operated generating units increased by RMB4.568 billion, and the operating revenue from domestic operations generated from the existing generating units decreased by RMB7.510 billion.

The operating revenue from the operations in Singapore decreased by RMB5.371 billion over the same period of last year, representing a decrease of 19.85%. The operating revenue from the operations in Pakistan decreased by RMB0.533 billion, representing a decrease of 13.12% over the same period of last year. The decrease in operating revenue from oversea operations was mainly due to the decrease in electricity tariffs.

Taxes and levies mainly include property tax, land use tax, environmental protection tax and value-added tax surcharges. Among them, the value-added tax surcharge is the education and urban construction taxes and fees paid in accordance with the relevant tax laws and regulations, based on the paid-in value-added tax and in accordance with the prescribed proportion. For the year ended 31 December 2024, the tax and levies on operations of the Company and its subsidiaries were RMB2.009 billion, representing an increase of 22.87% from RMB1.635 billion for the same period of last year, which was mainly attributable to the year-on-year increase in value-added tax paid for the domestic operations as a result of the year-on-year decrease in coal price, and the corresponding year-on-year increase in value-added tax surcharge paid on the corresponding calculations and year-on-year increase in the payment of environmental protection tax.

2.2 Operating expenses

For the year ended 31 December 2024, the total operating expenses of the Company and its subsidiaries was RMB219.545 billion, representing a decrease of 6.26% from RMB234.201 billion for the year ended 31 December 2023.

Mainly due to lower fuel costs resulting from the year-on-year decrease in domestic fuel prices, the operating expenses in domestic operations decreased by RMB10.633 billion. The costs attributable to the newly acquired entities and the new generating units increased by RMB2.058 billion; the costs attributable to the existing units decreased by RMB12.691 billion.

The operating expenses from the operations in Singapore decreased by RMB3.532 billion, mainly due to the decrease of operating cost of purchasing electricity of retail business. The operating expenses from the operations in Pakistan decreased by RMB0.491 billion, mainly due to the decrease in fuel cost of Pakistan business.

2.2.1 Fuel costs

For the year ended 31 December 2024, fuel costs of the Company and its subsidiaries was RMB142.115 billion, representing a decrease of 9.23% from RMB156.569 billion for the year ended 31 December 2023.

The fuel costs from domestic operations decreased by RMB13.881 billion, which was mainly attributable by the decrease in domestic fuel price. The fuel costs of the newly acquired entities and new generating units increased by RMB152 million and the fuel costs of the existing generating units decreased by RMB14.033 billion from same period of last year.

Fuel costs in Singapore decreased by RMB0.573 billion from the same period of last year, mainly due to a decrease in gas costs.

2.2.2 Maintenance expenses

For the year ended 31 December 2024, the total maintenance expenses of the Company and its subsidiaries amounted to RMB5.056 billion, representing an increase of 13.45% from RMB4.457 billion for the year ended 31 December 2023.

2.2.3 Depreciation

For the year ended 31 December 2024, depreciation expenses of the Company and its subsidiaries increased by 3.18% to RMB26.302 billion from RMB25.492 billion for the year ended 31 December 2023.

2.2.4 Labor

Labor costs mainly consist of salaries to employees and contributions payable for employees' housing funds, medical insurance, pension and unemployment insurance, as well as training costs. For the year ended 31 December 2024, the labor costs of the Company and its subsidiaries increased by 5.00% to RMB18.650 billion from RMB17.762 billion for the year ended 31 December 2023, which was mainly due to the increase in the average social wage, the consequent increase in the base for social security and fund contributions, and the related increase in labor costs.

MANAGEMENT'S DISCUSSION AND ANALYSIS

2.2.5 Other operating expenses

Other operating expenses mainly include environmental protection expenses, insurance premiums, office expenses, research and development costs, amortization, Tuas Power's electricity power purchase costs, impairment losses, government subsidies and net gains or losses on disposal of property, plant and equipment. Other operating expenses of the Company and its subsidiaries were RMB27.422 billion, representing a decrease of 8.35% from RMB29.920 billion for the year ended 31 December 2023.

Other operating expenses from the Company's domestic operations increased by RMB0.908 billion, mainly due to the year-on-year increase in expenditure on research and development activities related to the principal operations, expenditure on carbon emission quota compliance and various operating expenses due to the increase in installed capacity.

Other operating expenses of the operations in Singapore decreased by RMB2.925 billion over the same period of last year, mainly due to the decrease of operating cost of purchasing electricity of retail business. Other operating expenses of the operations in Pakistan decreased by RMB0.481 billion over the same period of last year, mainly attributable to lower fuel costs charged to other expenses.

2.3 Financial expenses

For the year ended 31 December 2024, the interest expense of the Company and its subsidiaries was RMB8.047 billion, representing a decrease of 14.17% from RMB9.375 billion for the year ended 31 December 2023, which was mainly due to the decrease in interest expenses amounting to RMB1.152 billion.

The interest expense from the Company's domestic operations decreased by RMB0.912 billion, mainly due to the decrease in the cost of interest-bearing debt over the same period of last year. The interest expense from the newly acquired entities and new generating units was RMB480 million and those incurred by the domestic existing entities decreased by RMB1.392 billion.

The interest expense of Singapore operations decreased by RMB112 million compared to the same period of last year. Interest expense of Pakistan operations decreased by RMB128 million over the same period of last year.

2.4 Investment income

2.4.1 Share of profits less losses of associates and joint ventures

For the year ended 31 December 2024, the share of profits less losses of associates and joint ventures of the Company and its subsidiaries was RMB1,260 million, representing an increase of 47.50% from RMB854 million for the year ended 31 December 2023, mainly due to the increase in share of net profit of associates and joint ventures such as Shanghai Times Shipping Co. Ltd., Jiangsu Nantong Power Generation Co., Ltd., Shenzhen Energy Group Co., Ltd. ("**Shenzhen Energy**").

2.4.2 Other investment gain

For the year ended 31 December 2024, other investment gain of the Company and its subsidiaries amounted to RMB5 million, a decrease of 99.76% from RMB1.930 billion in the previous year, mainly due to that the Company completely disposed of its 49% interests in its associate Huaneng Sichuan Energy Development Co. Ltd. ("**Sichuan Energy Development**") to Huaneng Lancang River Hydropower Inc. in September 2023, resulting in an investment gain of RMB1.961 billion.

2.5 Income tax expenses

For the year ended 31 December 2024, the Company and its subsidiaries recognized income tax expense of RMB3.815 billion, representing an increase of 2.90% from RMB3.708 billion for the year ended 31 December 2023.

The income tax expenses from domestic operations increased by RMB329 million, mainly due to the corresponding increase in income tax expense as a result of the year-on-year increase in profits from the Company's domestic operations.

The income tax expense for the operations in Singapore decreased by RMB276 million. The income tax expenses for the operations in Pakistan increased by RMB54 million over the same period of last year.

2.6 Net profit, net profit attributable to equity holders of the Company and non-controlling interests

For the year ended 31 December 2024, the Company and its subsidiaries achieved a net profit of RMB14.006 billion, representing an increase of 59.72% from RMB8.769 billion for the year ended 31 December 2023. Net profit attributable to equity holders of the Company was RMB10.185 billion, representing an increase of 21.86% from RMB8.357 billion in the previous year. The main reason was that the Company achieved a reduction in the unit cost of fuel for its domestic business during the year, which contributed to the increase in profitability of thermal power, and the orderly expansion of the scale of the Company's new energy brought about an increase in the volume and profitability of the Company.

2.7 Comparison of financial position

2.7.1 Comparison of asset items

As of 31 December 2024, the total assets of the Company and its subsidiaries were RMB595.577 billion, increased by 8.22% from RMB550.316 billion as of 31 December 2023.

Total assets of the domestic operations increased by RMB45.840 billion to RMB553.984 billion, including a net increase of RMB34.953 billion in property, plant and equipment, mainly due to the comprehensive impact of new capital infrastructure and technical renovation projects investment and provision of depreciation in the current year.

As of 31 December 2024, the total assets of the operations in Singapore amounted to RMB28.712 billion, basically unchanged from the end of the previous year (a decrease of RMB0.07 billion from the end of the previous year). The total assets of the operations in Pakistan amounted to RMB12.881 billion, a decrease of RMB509 million from the end of last year.

2.7.2 Comparison of liability items

As at 31 December 2024, the total liabilities of the Company and its subsidiaries were RMB384.998 billion, representing an increase of RMB14.036 billion from RMB370.962 billion as at 31 December 2023. Among of which, interest-bearing debts of the Company and its subsidiaries amounted to RMB306.758 billion. The interest-bearing debts consist of long-term loans (including those due within one year), long-term bonds (including those due within one year), short-term loans, short-term bonds and lease liabilities (including those due within one year).

As at 31 December 2024, the total liabilities of the operations in Singapore were RMB12.523 billion, representing a decrease of RMB1.389 billion from RMB13.912 billion as at 31 December 2023. As at 31 December 2024, the total liabilities of the operations in Pakistan were RMB8.252 billion, representing a decrease of RMB1.522 billion from RMB9.774 billion as of 31 December 2023.

2.7.3 Comparison of equity items

The total equity attributable to the equity holders of the Company increased by RMB5.031 billion as of 31 December 2024 as compared to 1 January 2024, mainly due to combined impact of the net profit attributable to equity holders of the Company of RMB10.185 billion in the current year, distribution of ordinary dividends of RMB3.140 billion and distribution of other equity instruments of RMB2.931 billion for the year. Non-controlling interests increased by RMB26.193 billion as compared to 1 January 2024, mainly due to the issuance of equity-type REITs financing products to absorb RMB23.051 billion from non-controlling interests.

MANAGEMENT'S DISCUSSION AND ANALYSIS

2.7.4 Major financial position ratios

	2024	2023
Current ratio	**0.54**	0.55
Quick ratio	**0.46**	0.48
Ratio of liability to equity	**2.68**	2.67
Multiples of interest earned	**2.96**	2.22

Formula of the financial ratios:

Current ratio = $\dfrac{\text{balance of current assets as of the year end}}{\text{balance of current liabilities as of the year end}}$

Quick ratio = $\dfrac{\text{(balance of current assets of the year end – net inventories as of the year end)}}{\text{balance of current liabilities as of the year end}}$

Ratio of liability to equity = $\dfrac{\text{balance of liabilities as of the year end}}{\text{balance of shareholders' equity (excluding non- controlling interests) as of the year end}}$

Multiples of interest earned = $\dfrac{\text{(profit before tax + interest expense)}}{\text{interest expense (including capitalized interest)}}$

The current ratio, quick ratio and ratio of liability to equity as of 31 December 2024 remained stable compared to 1 January 2024. The year-on-year increase in multiples of interest earned was mainly due to the impact of the Company's growth in operating profits for the year and the issuance of equity-type REITs financing products, which reduced interest expenses on debt financing.

B. LIQUIDITY AND FUND RESOURCES

1. Liquidity

	2024 *RMB billion*	2023 *RMB billion*	Change %
Net cash generated in operating activities	**50.530**	45.497	11.06
Net cash used in investing activities	**-61.727**	-54.529	13.20
Net cash generated in financing activities	**13.613**	8.720	56.11
Currency exchange impact	**0.034**	-0.054	162.96
Net increase/(decrease) in cash and cash equivalents	**2.450**	-0.366	769.40
Cash and cash equivalents as at the beginning of the year	**16.151**	16.517	-2.22
Cash and cash equivalents as at the end of the year	**18.601**	16.151	15.17

For the year ended 31 December 2024, net cash generated in operating activities of the Company and its subsidiaries was RMB50.530 billion, representing an increase of 11.06% from last year, mainly due to the decrease in fuel procurement expenditure, and decrease in VAT rebates received as compared with last year. The net cash used in investing activities amounted to RMB61.727 billion, which mainly represented fixed asset purchases, engineering expenditures and procurement of engineering materials related to the Company's construction for infrastructure and technological reform projects, with a year-on-year increase in expenditures of 13.20%, mainly due to the year-on-year increase in infrastructure expenditures for new energy and other projects. The net cash generated in financing activities was RMB13.613 billion for the year ended 31 December 2024, representing an increase of 56.11% as compared with last year, mainly due to increase in net financing amount in the current period to support capital expenditure of the Company's new energy development. As of 31 December 2024, the cash and cash equivalents of the Company and its subsidiaries denominated in RMB, Pakistan Rupee, Singapore dollar, US dollar and other currencies were equivalent to RMB14.989 billion, RMB1.457 billion, RMB2.052 billion, RMB74 million, and RMB29 million, respectively.

As of 31 December 2024, net current liabilities of the Company and its subsidiaries were approximately RMB82.438 billion. Based on the Company's proven financing record, readily available banking facilities and sound credibility, the Company believes it is able to duly repay outstanding debts, obtain long-term financing and secure funding necessary for its operations. The Company has also capitalized on its good credit record to make short-term loans at relatively lower interest rates, thus reducing its interest expenses.

2. Capital expenditure and fund resources

2.1 Capital expenditure on infrastructure construction and renovation projects

The actual capital expenditure of the Company and its subsidiaries in 2024 for the infrastructure construction and renovation projects was RMB61.947 billion.

Capital expenditures are sourced mainly from internal capital, cash flows from operating activities, and debt and equity financing. In the next few years, the Company will further accelerate development and construction of renewable energy infrastructure and promote structural adjustment, and therefore expects to have significant capital expenditures and renovation expenditures. The Company expects to finance the above capital expenditures through internal capital, cash flows from operating activities, and debt and equity financing.

MANAGEMENT'S DISCUSSION AND ANALYSIS

The cash requirements, usage plans and cash resources for future basic construction and renovation of the Company and its subsidiaries are as following:

(Unit: RMB100 million)

Projects	Capital expenditure in 2024	Capital expenditure plan for 2025	Cash resources arrangements	Financing costs and note on use
Thermal power projects	85.13	88	Including internal capital and bank loans	Within the floating range of benchmark lending interest rates of PBOC
Hydropower projects	0.14	5	Including internal capital and bank loans	Within the floating range of benchmark lending interest rates of PBOC
Wind power projects	250.56	362	Including internal capital and bank loans	Within the floating range of benchmark lending interest rates of PBOC
Coal mining projects	12.66	11	Including internal capital and bank loans	Within the floating range of benchmark lending interest rates of PBOC
Photovoltaic power projects	197.43	150	Including internal capital and bank loans	Within the floating range of benchmark lending interest rates of PBOC
Port	-	1.5	Including internal capital and bank loans	Within the floating range of benchmark lending interest rates of PBOC
Technology renovation etc.	73.55	76	Including internal capital and bank loans	Within the floating range of benchmark lending interest rates of PBOC

2.2 Fund resources and anticipated financing costs

Good operating results and sound credit status provide the Company with strong financing capabilities. As of 31 December 2024, the unutilized banking facilities available to the Company and its subsidiaries amounted over RMB370.0 billion, which are granted by commercial banks such as Bank of China, Industrial and Commercial Bank of China, China Construction Bank and other commercial banks.

In 2024, the Company and its subsidiaries issued a total of 19 unsecured ultra-short-term bonds totalling RMB44.8 billion, with coupon rates ranging from 1.60% to 2.06%. The bonds are denominated in RMB and issued at par value. As of 31 December 2024, short-term bonds payable by the Company and its subsidiaries were RMB8.017 billion (2023: RMB6.110 billion).

In 2024, the Company and its subsidiaries issued a total of 10 long-term bonds totalling RMB16.8 billion, with coupon rates ranging from 2.09% to 2.91%. The bonds are denominated in RMB and issued at par value. As of 31 December 2024, long-term bonds payable (including those due within one year) by the Company and its subsidiaries were RMB45.696 billion (2023: RMB39.868 billion).

As of 31 December 2024, short-term loans of the Company and its subsidiaries amounted to RMB61.166 billion (2023: RMB57.233 billion). In 2024, the annual interest rate of short-term loans ranged from 0.62% to 4.00% per annum (2023: 1.06% to 3.55%).

As of 31 December 2024, the Company and its subsidiaries' long- term loans (including long-term loans due within one year) totaled RMB183.778 billion (2023: RMB183.424 billion), including RMB loans of RMB175.020 billion (2023: RMB172.014 billion), USD loans of RMB8.018 billion equivalent (2023: RMB9.758 billion equivalent), SGD loans of RMB656 million equivalent (2023: RMB1.554 billion equivalent), JPY loans of RMB84 million equivalent (2023: RMB97 million equivalent), EUR loans of nil (2023: RMB2 million equivalent). Among them, SGD loans are floating rate loans, and JPY loans are fixed interest rate loans. In 2024, the annual interest rate of long-term loans is 0.75% to 9.35% per annum (2023: 0.75% to 7.59%).

The Company and its subsidiaries will closely monitor any change in the exchange rate and interest rate markets and cautiously assess the currency rate and interest rate risks.

Combined with the overall development trend of the current power generation industry and the growth of the Company, the Company will continue to strive to not only meet cash requirements of daily operations, constructions and acquisitions, but also establish an optimal capital structure to minimize the cost of capital and manage financial risks through effective financial management activities, thus maintaining sustainable and stable returns to the shareholders.

2.3 Other financing requirements

Pursuant to the Company's goal to create long-term, stable and growth return for shareholders, the Company implements a positive, balanced and stable dividend policy. According to the profit distribution proposal of the board of directors of the Company for 2024 (to be approved by the general meeting of shareholders), it is expected that the Company will pay a dividend of RMB0.27 per ordinary share (inclusive of tax) and a total cash dividend of RMB4.238 billion.

2.4 Maturity profile of interest-bearing debts

(RMB100 million)

Maturity Profile	2025	2026	2027	2028	2029
Principal amount planned for repayment	1,091.49	306.82	238.29	192.40	148.29
Interest amount planned for repayment	75.22	53.48	45.42	39.73	33.57
Total	1,166.71	360.30	283.71	232.13	181.86

Note: The amount of principle to be paid in 2025 is relatively large because this includes expected repayment of short-term loans and short-term bonds.

MANAGEMENT'S DISCUSSION AND ANALYSIS

C. LONG-TERM DEVELOPMENT STRATEGY AND PLAN

The Company will fully implement the new development philosophy of "innovation, coordination, green development, openness, and sharing", adhering to a quality- and efficiency-centered approach while balancing energy security with green development to comprehensively promote high-quality development. By the end of the "14th Five-Year Plan" period, the Company aims to achieve approximately 45% of its installed capacity from low-carbon and clean energy sources, striving to become a world-class publicly listed power generation company with sound governance, operational excellence, energy efficiency, environmental protection, and outstanding market value.

The Company will follow the national energy security strategy of "Four Revolutions and One Cooperation" as its guiding principle and is committed to achieving carbon peaking and carbon neutrality, prioritizing quality and efficiency to drive the green and low-carbon transformation of energy. The Company will accelerate the leapfrog development of new energy and establish large-scale clean energy bases that are complementary, intensive, digitalized, and standardized ("Three Types, Three Modernizations") in the "Three North" regions (Northeast, North, and Northwest China), as well as in coastal provinces such as Liaoning, Shandong, Jiangsu, Zhejiang, and Guangdong, and other central regions with abundant renewable energy resources. The Company will also expedite the optimization and upgrading of the coal-fired power structure by controlling new capacity, optimizing existing capacity, and promoting reductions, striving for a transition toward a dual focus on foundational security and system regulation power sources while selectively developing gas power and other clean energy generation. With technological innovation as a key driver of high-quality development, the Company is committed to serving national strategies, addressing major corporate development needs, and advancing digital and intelligent transformation to enhance independent innovation capabilities, while also implementing technology demonstration projects. The Company will strengthen and optimise integrated energy services, adapting to the transformation of the national energy supply structure, leveraging digitalization to develop strategic emerging industries, and focusing on diversified energy supply and services around its core business. It will actively integrate into the dual domestic and international economic circulation, strengthening international cooperation, enhancing the efficient operation of overseas assets, and improving their risk resistance and profitability. Adhering to the principle of enhancing efficiency and creating value, the Company will solidify its operational management foundation, improve management effectiveness, comprehensively enhance its modernized operational and control capabilities, strengthen corporate governance, increase brand value, and diligently fulfill its corporate social responsibilities.

D. TREND ANALYSIS

The year 2025 marks the final year of the "14th Five-Year Plan" and the culmination of efforts to deepen reforms comprehensively. The Central Economic Work Conference has emphasized the need to maintain steady progress while seeking advancements, promoting stability through growth, and ensuring stable economic expansion. It calls for the implementation of a more proactive fiscal policy and a moderately accommodative monetary policy. The conference also outlined key priorities, including significantly boosting consumption, enhancing investment efficiency, and expanding domestic demand in all aspects. Additionally, it stresses leveraging technological innovation to drive the development of new productive forces, building a modern industrial system, strengthening fundamental research, and tackling key core technologies. Moreover, efforts will be coordinated to reduce carbon emissions, cut pollution, expand green growth, and accelerate the comprehensive green transition of economic and social development, alongside further deepening the reform of the ecological civilization system.

In terms of power supply and demand, according to the annual power supply and demand analysis and forecast by the China Electricity Council, considering China's current economic growth potential, the "14th Five-Year Plan" and the Vision 2035 Outline, as well as national macroeconomic policies and regulatory measures, total electricity consumption nationwide is expected to increase by approximately 6% year-on-year in 2025. The newly commissioned power generation capacity is expected to exceed 450 million kilowatts, and by the end of 2025, the proportion of coal-fired power in total installed capacity is projected to decline to one-third.

In terms of the electricity market, in 2024, the central government issued the Notice on Establishing and Improving the Electricity Ancillary Services Market Pricing Mechanism and solicited public opinions on the Basic Rules of the Electricity Ancillary Services Market. It is expected that various regions will continue to introduce and update policies in the ancillary services sector in line with the latest national policies, further improving market-based mechanisms. The construction of the electricity spot market is advancing rapidly, with settlement trial operations underway in 23 provincial-level spot markets and the inter-provincial spot market transitioning to formal operations. The southern regional market has achieved its first full-month trial settlement under a "cross-province + intra-province joint clearing" mechanism, highlighting the increasing role of the electricity market in optimizing resource allocation flexibly. Additionally, policies for the integration of new energy into the market have been issued, requiring full electricity market participation for new energy sources. Electricity prices will be determined through market-based mechanisms, and the market-oriented reform of grid electricity pricing for new energy is expected to reshape the operational model of new energy development while exerting a profound and comprehensive impact on all types of power sources participating in market transactions and the next phase of market development.

In terms of the carbon market, as the work towards carbon peaking and carbon neutrality progresses, the fourth compliance period of the national carbon market will lower the carbon emissions benchmark, and the allocation of allowances will continue to tighten. As a result, the compliance cost for carbon emissions per unit of electricity is expected to keep rising.

In terms of the coal market, coal production policies have shifted from ensuring supply to stabilizing production, with continued emphasis on safety production supervision. Coal enterprises are focusing their investments on improving coal mine safety and adopting intelligent upgrades. The potential for increasing coal production is limited, and the market is expected to maintain a "overall balance with periodic fluctuations" pattern. With the ongoing industrial restructuring and green low-carbon transformation in China, the substitution effect of new energy for coal-fired power continues to grow. It is expected that coal consumption for power generation will remain largely unchanged from the previous year, with further slowing growth. Demand from non-electricity industries has partially recovered, with coal consumption in sectors such as steel and building materials increasing, while demand for coal in the coal chemical industry remains strong. It is expected that coal prices will stabilize in 2025, with a slight downward adjustment in the price center.

MANAGEMENT'S DISCUSSION AND ANALYSIS

In terms of the financial market, according to the spirit of the Central Economic Work Conference and the quarterly meetings of the central bank's monetary policy committee, the goal for 2025 is to promote continuous economic recovery and improvement, adhering to the principles of seeking progress while maintaining stability, advancing stability through progress, maintaining integrity while innovating, establishing foundations before making breakthroughs, integrating systems, and coordinating efforts. This involves fully improving the policy toolkit and enhancing the foresight, specificity, and effectiveness of macroeconomic control. More proactive fiscal policies and moderately accommodative monetary policies will be implemented, along with the innovation of financial tools, to maintain stability in the financial markets.

E. PERFORMANCE OF SIGNIFICANT INVESTMENTS AND THEIR PROSPECTS

As at 31 December 2024, the carrying amount of the Company's investments in associates and joint ventures amounted to RMB24.673 billion. Among them, the Company's investment in Shenzhen Energy is significant.

The Company acquired 25% equity interest in Shenzhen Energy Group for RMB2.39 billion on 22 April 2003. In 2011, Shenzhen Energy Group divided into a remainder company of the same name and a new company Shenzhen Energy Management Company ("SE Management"), and the Company holds 25% equity interests in each of the two successors. The Company acquired 200 million shares from Shenzhen Energy, a subsidiary of Shenzhen Energy Group in December 2007. Shenzhen Energy allotted shares with its capital surplus in 2011. In February 2013, Shenzhen Energy merged SE Management through the combination of directional seasoned offering and cash payment to shareholders of SE management, Shenzhen State-owned Assets Administration Commission and the Company. After the merger, the Company held 661 million shares of Shenzhen Energy, representing 25.02% of its equity interests. In 2024, Shenzhen Energy distributed cash dividend amounting to RMB1.40 (tax inclusive) of every 10 shares to its shareholders, and the Company held 1,190 million shares of Shenzhen Energy by 31 December 2024. These investments brought a net profit to the Company of RMB454 million for the year ended 31 December 2024 under IFRS accounting standards. This investment is expected to provide steady returns to the Company.

F. EMPLOYEE BENEFITS

As of 31 December 2024, the total number of employees of the Company and its subsidiaries, both domestically and overseas, was 56,263. The Company and its subsidiaries offer employees competitive remuneration and implement an incentive policy that links remuneration with performance. At present, the Company and its subsidiaries do not have any equity or stock option incentive plans.

The Company and its subsidiaries provide training programs in management, technology, and skills based on corporate development needs and job responsibilities, while also considering employees' individual characteristics, striving to enhance their overall competence.

G. GUARANTEE FOR LOANS AND RESTRICTED ASSETS

As at 31 December 2024, the Company provided guarantees for long-term loans of approximately RMB1,273 million (31 December 2023: approximately RMB917 million) to its domestic subsidiaries.

As at 31 December 2024, long-term loans of approximately RMB84 million (31 December 2023: RMB97 million) were guaranteed by Enshi Finance Bureau of Hubei Province.

As at 31 December 2024, long-term loans of approximately RMB78 million (31 December 2023: approximately RMB92 million) were guaranteed by Tangyin County Modern Agricultural Investment Co., Ltd.

As at 31 December 2024, long-term loans of approximately RMB202 million (approximately US$28 million) (31 December 2023: RMB199 million (approximately US$28 million)) were guaranteed by Huaneng Shandong Power Generation Co., Ltd. ("Shandong Power").

As at 31 December 2024, long-term loans of approximately RMB5,635 million (31 December 2023: RMB6,277 million) were guaranteed by Shandong Power, China Export & Credit Insurance Corporation and Jining Chengtou Holding Group Co., Ltd. ("Jining Chengtou") at the liability ratios of 17.5%, 65.0% and 17.5% respectively (31 December 2023: Shandong Power, China Export & Credit Insurance Corporation and Jining Chengtou at the liability ratios of 17.5%, 65.0% and 17.5% respectively).

As at 31 December 2024, long-term loans of approximately RMB711 million (31 December 2023: RMB1,135 million) were guaranteed by Shandong Power and Jining Chengtou at the liability ratios of 50.0% and 50.0% respectively (31 December 2023: Shandong Power and Jining Chengtou at the liability ratios of 50.0% and 50.0% respectively).

As of 31 December 2024, the details of secured loans of the Company and its subsidiaries were as follows:

As at 31 December 2024, short-term loans of RMB47 million were secured loans formed by factoring accounts receivable (31 December 2023: nil). As at 31 December 2024, short-term loans of RMB47 million (31 December 2023: RMB423 million) represented the notes receivable that were discounted with recourse. As these notes receivable had not yet matured, the proceeds received were recorded as short-term loans. As at 31 December 2024, short-term loans of approximately RMB32 million were secured by future revenue right from the electricity business (31 December 2023: nil).

MANAGEMENT'S DISCUSSION AND ANALYSIS

As at 31 December 2024, short-term loans of RMB302 million (31 December 2023: RMB223 million) were secured by certain equipment with a net book value amounting to approximately RMB427 million (31 December 2023: RMB474 million).

As at 31 December 2024, long-term loans of RMB3,051 million (31 December 2023: RMB4,675 million) were secured by certain property, plant and equipment with a net book value amounting to approximately RMB4,875 million (31 December 2023: RMB6,543 million).As at 31 December 2024, long-term loans of approximately RMB2,756 million (31 December 2023: Nil) were secured by certain construction in progress with a net book value amounting to approximately RMB2,436 million (31 December 2023: Nil). Included in these secured loans, approximately RMB1,444 million (31 December 2023: Nil) were additionally secured by both the future revenue right from electricity and equity interests of the corresponding subsidiaries as collateral, while approximately RMB1,312 million were secured solely by the future revenue right from electricity as collateral (31 December 2023: Nil).

As at 31 December 2024, long-term loans of approximately RMB5,060 million were secured by future revenue right from the electricity or heat business (31 December 2023: RMB4,218 million).

As at 31 December 2024, the Company and its subsidiaries had restricted bank deposits amounting to RMB1,331 million (31 December 2023: RMB699 million).

H. ACCOUNTING STANDARDS HAVING MATERIAL IMPACT ON THE COMPANY'S FINANCIAL STATEMENTS

For the accounting standards that have a material impact on the Company's financial statements, please refer to the Note 2 to the financial statements prepared in accordance with IFRS accounting standards.

I. RISK FACTORS

1. Electricity Industry and Market Risks

According to data released by the China Electricity Council, total electricity consumption nationwide is expected to grow by approximately 6% year-on-year in 2025. The total new installed power generation capacity is expected to exceed 450 million kilowatts, with over 300 million kilowatts of new renewable energy generation capacity. By the end of 2025, the proportion of coal-fired power in total installed capacity is projected to decrease to one-third. The utilization hours of coal power units will further decrease, and in some regions, the pressure to absorb renewable energy will become more prominent. During extreme weather and peak demand periods, there may be risks of electricity supply shortages in certain regions during specific time periods.

Renewable energy generation will fully enter the market, with electricity prices determined through market trading. Due to the characteristics of renewable energy output and factors such as absorption pressure, renewable energy may face dual uncertainties related to absorption and electricity prices, leading to a risk of declining settlement prices for the Company, which may affect overall revenue.

The Company will actively track national and industry-related policies, proactively adapt to the development needs of the electricity market under the "dual carbon" goals, and comprehensively consider market factors such as system demand, spatial value, price trends, and trading mechanisms to optimize investment regions and power source combinations, seeking to maximize economic benefits. The Company will accelerate the technological upgrade and transformation of coal-fired power units, strengthen its analysis of electricity supply and demand trends, and adjust pricing strategies in a timely manner to fully mitigate risks in the electricity industry and market. At the same time, the continuous improvement of ancillary services, capacity compensation, and price transmission mechanisms will create favorable conditions for the Company's stable operations and sustainable development.

2. Risks in the Fuel Procurement Market

With the recovery of the domestic macroeconomy and the continuous increase in electricity consumption, during peak electricity demand periods such as summer and winter peaks and extreme weather conditions, there may be instances of localized electricity supply shortages during specific time periods. Thermal power will continue to play a crucial role in ensuring energy security, while local coal supply may still face significant pressure.

In coastal regions, the proportion of imported coal is relatively high, making coal supply more vulnerable to fluctuations in the international market, leading to certain uncertainties.

The Company will closely monitor changes in the coal market, implement national policy requirements, and fully leverage the role of long-term contracts as a stabilizing force. It will stay abreast of international coal market conditions and, while mitigating the risks of imported coal, further optimize the import of coal. The Company will continue to optimize its supply structure, enhance peak supply capacity, and improve adaptability to the new electricity market. It will strengthen inventory management, utilize seasonal storage strategies, and implement various measures to control coal procurement costs.

3. Carbon Market Risks

The national carbon market has completed three compliance periods, and in the third compliance period, the Company successfully met all compliance requirements ahead of schedule. In the fourth compliance period (2024), the allocation of allowances will continue to tighten, potentially driving up carbon trading prices and increasing the risk of higher carbon compliance costs.

The Company will closely monitor changes in national carbon market policies, accelerate energy-saving and emission-reduction upgrades, effectively control the total carbon emissions, and strategically optimize carbon trading policies in an effort to reduce compliance costs.

4. Environmental Risks

In line with the current state and demands of ecological civilization construction, the national government continues to improve and deepen environmental protection policies in key regions such as the Beijing-Tianjin-Hebei area, the Yangtze River Economic Belt, and the Pearl River Delta. New and stricter requirements have been introduced in areas such as water body protection and dust control, with increased on-site inspections. As a result, environmental protection expenses for grassroots enterprises may rise.

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The Company strictly implements national environmental protection policies, ensuring that all its coal-fired power plants have completed ultra-low emissions upgrades and are operating in compliance with ultra-low emissions standards. The Company has shown good adaptability to fluctuations in external and internal factors such as weather conditions, fuel quality, and electricity and heat load, and all plants have passed local environmental protection department inspections. Additionally, the Company actively monitors environmental concerns from regulatory authorities, and with a cautious approach, scientifically selects advanced and applicable technological solutions. Efforts are being made to improve water conservation and wastewater treatment systems, build coal yard enclosures, and enhance comprehensive utilization of ash and slag, ensuring that environmental risks are promptly identified and effectively mitigated.

5. Power Construction Risks

In power construction, the Company may face risks such as extreme weather, rising labor costs, delays in obtaining necessary permits and documents (such as the four certificates and one letter), and longer-than-expected land acquisition periods.

The Company will proactively address these risks and challenges, enhancing organizational coordination and mobilizing the active participation of all project stakeholders. The Company will work to overcome difficulties and ensure that projects progress in an orderly manner according to plan.

CORPORATE GOVERNANCE REPORT

The Company has been consistently stressing the importance of corporate governance. The Company has established and improved a sound corporate governance structure consisting of the shareholders' general meeting, the Board, the Supervisory Committee, and the management team and built an operating mechanism with clear separation of powers and responsibilities, mutual checks and balances and coordinated operations between proprietorship, decision-making power, supervisory power, and management power, ensuring the effective enforcement of the decision-making power of the shareholders' general meeting and the Board, and the supervisory power of the Supervisory Committee, ensuring the efficient and compliant management of the management team.

During the reporting period, the Company had complied with the relevant requirements contained in Appendix C1 to the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (the "Hong Kong Listing Rules").

In 2024, in accordance with the requirements under the Environmental, Social and Governance Reporting Code of the Hong Kong Stock Exchange, the Company has completed the preparation and disclosure of the Environmental, Social and Governance Report in due time, which will be published on the website of the Company (www.hpi.com.cn: Investor Relationship-ESG Report) and the website of Hong Kong Stock Exchange (www.hkexnews.hk) together with the annual report as scheduled. If you wish to request a printed copy of the "2024 Environmental, Social and Governance Report" of the Company, you can contact the Company by sending email to zqb@hpi.com.cn.

(A) CORPORATE GOVERNANCE PRACTICES

In recent years, the Company adopted the following measures to strengthen corporate governance and to enhance the Company's operation quality:

(I) Enhancing and improving corporate governance

As a public company listed both domestically and internationally, the Company conscientiously implements the regulatory requirements of its listing place and proactively accepts the supervision of investors. Since its establishment, the Company has been continuously completing and improving its modern governance system and capacity. The Company has established and improved a corporate governance structure consisting of the shareholders' general meeting, the Board, the Supervisory Committee, and management team and built an operating mechanism with clear separation of powers and responsibilities, mutual checks and balances and coordinated operations between proprietorship, decision-making power, supervisory power, and management power, ensuring the effective enforcement of the decision-making power of the shareholders' general meeting and the Board, and the supervisory power of the Supervisory Committee, ensuring the efficient and compliant management of the management team. After years of exploration and practice, the Company has built up a normal, sound and effective corporate governance system that caters for the development of the Company.

The Company has built up a comprehensive and efficient corporate governance system, and formulated more than 20 management systems including the "Rules of Procedures for the General Meetings", the "Rules of Procedures for the Board of Directors", "Rules of Procedures for the Supervisory Committee", "Working Rules for the General Manager" and "working rules for special committees", which clearly defined the job

CORPORATE GOVERNANCE REPORT

description responsibilities including the term of reference, organization structuring, procedures, working regulations of general meetings, Board of Directors and Supervisory Committee, etc. In 2024, the Company continuously improve the institutional system with the Articles of Association as the core, and the special systems as the supporting. On the basis of the original "Working System for Independent Directors", a more complete and comprehensive set of "Working Rules for Independent Directors" was formulated and implemented in accordance with the requirements of the new regulations for independent directors, and the "Management Measures for Authorisation by the Board of Directors" and other systems were revised and improved, which provided important safeguards for further improving the construction of the institutional system and continuously strengthening the standardised operation of the Company.

In 2024, the Company held 2 general meetings, 8 meetings of the Board of Directors, 4 meetings of the Supervisory Committee, 12 meetings of special committees, and 4 special meetings of independent directors, and reviewed more than one hundred important proposals such as regular reports, profit distribution plan, the continuing connected transactions and engagement of auditors. All the Directors, Supervisors and senior management consciously comply with the relevant national laws and regulations and the regulatory requirements of the jurisdictions in which the Company's shares are listed, performed their duties diligently and conscientiously, attended the relevant meetings on time, carefully considered and approved relevant matters, made decisions in a scientific and cautious manner, and effectively promoted the implementation of various work.

The Company attached great importance to its risk management and internal control, established and continuously improved the risk control and internal control system to ensure its effectiveness. The Company designed and completed the Internal Control Manual by comprehensively sorting out internal and external risks and various business processes, which comprehensively expounds the Company's principles and policies, clarifies the working procedures and post responsibilities of various positions of the Company, and regulates the standard procedures of various business processes of the Company, so as to realize the process-oriented systems. The Company evaluates the effectiveness of the internal control system annually and regularly revises and improves the internal control system to realize the dynamic maintenance of the internal control system. At the same time, the internal control management department, the internal audit department and the external auditor report the internal control work of the Company to the Audit Committee under the Board of Directors on a regular basis, ensuring the continuous and effective operation of the internal control system. The Company successfully passed the audit on internal control by the external auditor for 19 consecutive years.

The Company has completed the preparation and disclosure of ESG report with high quality for 9 consecutive years. For the second consecutive year, the Company's ESG practices have been selected by the State-owned Assets Supervision and Administration Commission (SASAC) as "ESG-Pioneer 100 Index of Listed Companies of Central Enterprises (2024)", and have been included in the "Blue Book on Environmental, Social and Governance (ESG) of Listed Companies of Central Enterprises". For the third consecutive year, the Company has been awarded the "2024 Best Sustainability Practice Case of Listed Companies" by the China Association for Public Companies (CAPCO), recognized with the "ESG Excellent Practice in 2024" by China Media Group (CMG) and China Enterprise Reform and Development Society (CERDS) and featured in the 2024 ESG Excellence Practices Report, honored as an "Outstanding ESG Sustainable Development Case" jointly by CERDS and China Comment, and certified as an "Exemplary Social Responsibility Initiative in Power Industry" by China Electricity Council (CEC). The Company's ESG achievements have been extensively covered by CCTV and Xinhua News Agency. The Company's Annual Social, Environmental and Governance Report 2024 will be published on the Company's website and the website of Shanghai Stock Exchange in April 2025.

The Company strictly complied with relevant regulatory requirements of the place in which the Company's shares are listed, proactively fulfilled the disclosure obligations, and endeavoured to ensure the truthfulness, accuracy, completeness, timeliness and fairness of the information disclosed by the Company. During the reporting period, the Company completed 262 domestic and overseas announcement disclosure, remained zero error in information disclosure, and won the "A" grade rating granted by the Shanghai Stock Exchange. The Company was awarded the "Golden Information Disclosure Award" in the 26th Golden Bull Award for Listed Companies organized by China Securities Journal. The Company's 2023 H-share annual report won two awards, including the Silver Award in the Power Company category and the Bronze Award in the Energy Company category for cover design of the 38th International ARC Annual Report Awards. The Company's 2023 H-share annual report won the Regional Silver Award for Best Shareholder Letter in the LACP 2023 Vision Awards. The Company continued to strengthen the management of investor relations, responded to market concerns in a timely manner through various forms such as performance promotion conferences, investment forums and brokerage investment strategy meetings, E-interactive platform of Shanghai Stock Exchange and daily communication, and always maintained the concept of quick response, careful interpretation and frank communication to accurately convey the investment value of the Company. The performance promotion conference was selected as the"Best Practice Case of the performance promotion conferences in 2023"by the China Association for Public Companies.

In 2024, after unremitting efforts, the Company was awarded "Excellent Listed Company with High Quality Development" in the 14th China Securities Golden Bauhinia Award. The Board of Directors was awarded the honor of "Best Practice Case of the Board of Listed Companies in 2024" by the China Association for Public Companies and the "Outstanding Board of Directors" of the 19th "Golden Prize of Round Table" of Chinese Boards of Listed Companies. The Company's Tuas Power won the "Annual Overseas Case" awarded in the "2024 Phoenix Star Listed Company Awards", which further enhanced the Company's visibility and reputation in the capital market.

The Board takes joint responsibility for the corporate governance of the Company. During the reporting period, the Board has included the following in its scope of powers and duties:

- Formulating and reviewing the Company's corporate governance policy and general rules, and making such amendments as it deems necessary to such policy and rules in order to maintain the effectiveness thereof;

- Reviewing and monitoring the training and sustained professional development of the Company's Directors and senior management;

- Reviewing and monitoring the Company's policy and general rules for complying with laws and regulations;

- Formulating, reviewing and monitoring the codes of conduct and compliance handbook applicable to the Company's directors and employees; and

- Reviewing the Company's compliance with the Code and the disclosures made in the Corporate Governance Report.

CORPORATE GOVERNANCE REPORT

(II) Enhancing and improving the information disclosure system

The Company has been stressing the importance of public information disclosure. The Company has established the Information Disclosure Committee comprised of the Board Secretary, the chief accountant and heads of various departments, which is responsible for reviewing the Company's regular reports. The Company has implemented the system of holding regular information disclosure meetings, chaired by the Board Secretary and attended by relevant business departments, at which the important matters related to the operation of the Company is reported and discussed, thereby warranting the Company's performance of the relevant information disclosure obligations in a timely manner. The Company attached great importance on the information disclosure, and has successively formulated and implemented the relevant information disclosure system. The current systems in place include the Rules on Information Disclosure Management, the Rules on Related Party Transactions Management, the Rules on Insider Information Management, the Rules on Investor Relations Management, the Rules on the Work of the Information Disclosure Committee and the Rules on the Annual Report Information Disclosure Significant Errors Accountability, etc. In 2024, the Company continued to pay attention to the external new regulatory rules and the progress of the integration of relevant rules, sorted out and evaluated relevant systems in a timely and comprehensive manner, which provided effective basis and guidance for the Company to carry out daily business in compliance with requirements. The above measures and system ensure the regulated operation of the Company, strengthen the truthfulness, accuracy, completeness and the timely disclosure of information, and at the same time enhance the quality as well as transparency of information disclosure.

The Company made great efforts to maintain investor relations, responded to investor concerns in a timely manner, and actively maintained the market image. Relevant departments of the Company compiled answers (and subsequent updates) to questions regarding the hot topics of market concerns, the Company's production, operation and operating results in a timely manner, which shall become the basis of external communication of the Company after being approved by the Company's management and the authorized representatives of the Information Disclosure Committee. Also, the Company conducts specialized trainings for the staff of the Company who are responsible for information disclosure on an irregular basis in order to continuously enhance their expertise.

(III) Regulating financial management system

The credibility of a listed company, to a large extent, relates to the quality of the preparation of financial statements and a regulated operation of financial activities. In 2024, the Company continued to carry out various detailed work on the preparation of financial reports and standardized financial operation under the principle of acting with honesty and integrity and treating shareholders in a fair manner. The details include:

1. In order to strictly implement the accounting regulations, accounting standards and accounting systems, strengthen financial accounting and accounting supervision, and truthfully and fairly reflect the financial position, operating results and cash flow, the Company has formulated a set of complete accounting and financial reports preparation rules and regulations and made amendments and improvements on a regular basis to ensure the implementation of new accounting standards and relevant regulatory requirements in a timely and effective manner. The Company revised the Measures on Accounting, Travel Management Regulations, Management Measures for Small-Scale Infrastructural Projects, etc. in the last two years. The Company's Board, Supervisory Committee

and the Audit Committee have examined the Company's financial reports on a regular basis and the Company has fulfilled the requirements of making the Chairman, the President and the Chief Accountant responsible for the truthfulness, authenticity and completeness of the financial reports.

2. In terms of fund management, the Company has formulated a number of management measures including the Measures on Financial Management, the Measures on Capital Management, the Measures on Use and Management of Funds in Large Sums by the Company Headquarters, the Measures on Management of Fund Raising, the Measures on the Management of Financial Derivative Business, the Administrative Measures on Financing Guarantee and the Measure on the Management of Regulating Fund Transfers with Related Parties. The Company's Articles of Association also set out provisions relating to loans, guarantees and investment. In the annual reports of the Company over the previous years, the Company has engaged registered accountants to conduct an examination on the use of funds by the controlling shareholder and other related parties and issue individual statements according to the requirements of the China Securities Regulatory Commission ("CSRC") and the Shanghai Stock Exchange ("SSE"), and there has not been any violation of rules relating to the use of funds. Moreover, the Company also conducted quarterly checking and clearing with related parties in relation to the operational fund transfers in order to ensure the safety of funds.

(IV) Risk Management and Internal Control

The Board of Directors attaches great importance to management of enterprise risk and internal control, and establishes and continuously improves an effective risk management and internal control system to further create value for the Company and effectively safeguard the interests of shareholders and the Company's assets, while realising the objectives of operation and development.

The Board of Directors is responsible for risk management and internal control systems and has the duty to review the effectiveness of these systems. The Board of Directors of the Company is committed to continuously overseeing the Group's risk management and internal control systems, ensuring that these systems effectively identify and manage potential risks while promoting the stable operation of the Company. To ensure the effectiveness of these systems, the Board of Directors is committed to conducting a comprehensive review of the risk management and internal control systems of the Company and its subsidiaries at least annually. This review covers all key monitoring areas, including but not limited to financial control, operational control, and compliance monitoring, to ensure that these measures can respond promptly to various risks and challenges that may arise in the Company's operations. While the Group continuously evaluates its risk management and internal control systems, it believes that its existing risk management framework is robust and comprehensive enough to effectively address and manage various risks. It is important to note that the goal of the Group's risk management and internal control systems is not to eliminate all possible risks but to minimize the risk of failing to achieve corporate objectives through reasonable control measures and effective management strategies. These systems provide reasonable assurance to prevent material misstatements, losses, or fraud, although they cannot provide absolute assurance, they do give confidence to shareholders and stakeholders. An outline of the key features of the Group's risk management and internal control systems, implementation procedures, steps to address significant internal control deficiencies, and the frequency and coverage period of the annual risk management and internal control systems review are as follows:

1. Risk Management

To enhance the risk prevention ability and promote the sustainable development of the enterprise, the Company establishes and improves the comprehensive risk management system, implements the basic process of risk management in all aspects of operation and management, fosters a good risk management culture, and actively carries out the comprehensive risk management work.

CORPORATE GOVERNANCE REPORT

The Company headquarters and all management units have set up a risk management function with a clear definition of their respective responsibilities, and has established a smooth risk reporting and early warning mechanism, so that risk management is carried out throughout the daily work.

The basic process of the Company's comprehensive risk management includes initial risk information collection, risk identification and assessment, risk mitigation and supervision and improvement of risk management. The Company prepares a comprehensive risk management report annually. The Strategy Committee under the Board of Directors is responsible for the decision-making of the Company's overall risk management and listens regularly to the relevant reports, and its responsibilities include but are not limited to the approval of the annual report on the overall risk management, the assessment of the risk and of its effectiveness. The Audit Committee under the Board of Directors will identify and evaluate the fraud risk of senior management and the Board of Directors, and will form an independent fraud risk assessment report.

In 2024, the Strategy Committee of the Board of Directors held a meeting to consider and approve the Company's Overall Risk Management Report for the Year 2024. During the reporting period, the Company has fully complied with the Corporate Governance Code of Appendix C1 to the Hong Kong Listing Rules, including but not limited to the provisions in relation to risk management and internal control.

In 2024, with the joint efforts of the whole Company on risk identification, risk assessment, risk prevention and control and implementation of relevant measures, the risk management get more standardized in daily work with continuous improvement, and the Company has generally achieved positive results in the prevention and resolving major and other risks, and minimized the impact of risk on the results of business development.

2. Internal Control

The overall objective of the Company's internal control work is to promote the implementation of corporate strategies, in particular, to provide reasonable assurance for the compliance of the Company's operation and management with applicable laws and regulations, the security of the Company's assets and the authenticity and completeness of the Company's financial reports and relevant information, so as to promote the overall improvement in efficiency and effectiveness of operations.

The Company fully sorted out the potential internal and external risks and various business processes and compiled the Internal Control Handbook. In the sixth edition of the Internal Control Handbook, the Company sets out detailed provisions for 25 business processes (including income, procurement of materials, fuel management, fund management) and 19 soft elements (including organizations structure, human resources management, anti-embezzlement, risk management) from five perspectives (control environment, risk evaluation, control process, information and communication, monitoring), which comprehensively expounds the Company's principles and policies, clarifies the working procedures and post responsibilities of various positions of the Company, and regulates the standard procedures of various business processes of the Company, so as to realize the process-oriented systems. The Company has also compiled the Internal Control Assessment Handbook to help implement the three-level management system for internal control assessments as well as internal control assessment mode which integrates routine assessments with focused surveillance, with a view to standardising the procedures and assessment method of internal control assessments and regulating the procedures and standards for deficiency definition, striving to standardize and regulate its internal control assessments. Each year, the Company evaluates the effectiveness of the above systems and makes regular modifications and improvements to them as part of the dynamic maintenance of the internal control system.

The Company has an internal audit function. For the risks identified, the Company provides for control measures in the Internal Control Handbook and defines key control points through which the responsibility of internal control is allocated to each working position, so that all the staff members of the Company become a part of the internal control construction force. The Company adopts a routine assessment system, where internal control assessors are designated to all the departments and subordinate entities to conduct monthly internal control assessments. The three-level of quality supervision has been established at the Company, regional branches and the grassroots units, which are three levels of the Company, through the internal control management system to track the implementation of control in real time. For the internal control evaluators, the Company implements the system of "holding positions with certificates", and takes the training and passing of examinations as a necessary condition for reviewing the qualifications of internal control evaluators, effectively promoting the improvement of the professional quality of internal control personnel. During the year, the Company has successfully completed the 12-month routine internal control assessments, thereby effectively safeguarding and promoting the sustained and healthy development of the Company's businesses and ensuring the sound and stable operation of the internal control system. Taking into account the new requirements on and changes in its business and management as well as its advanced experience and common issues accumulated over the years, each year the Company organizes all-around multi-level internal control trainings to deliver a fullrange propaganda on the philosophy and knowledge for internal control, so that the internal control environment is continuously optimised.

The internal control management department, the internal audit department and the external auditors made regular report separately on their internal control work to the Audit Committee of the Board of Directors, which ensures the sustained and effective operation of the internal control system. The Company continuously improves the internal control assessment system, formulates the Management Measures for Assessment of Internal Control Targets, and conducted internal control target assessment annually, and cashes in the assessment results in a timely manner, which effectively guided units at all levels to pay attention to the quality of internal control work, and earnestly realized the in-depth goal of promoting management through internal control.

In addition, in accordance with the Hong Kong Listing Rules and the Inside Information Guidelines issued by the Hong Kong Securities and Futures Commission, the Company has established strict procedures for the handling and disclosure of inside information. These procedures are designed to ensure that all inside information is processed in compliance with relevant legal and regulatory requirements, and that the information disclosed to the public is accurate, timely, and fair. The Company follows the procedures and internal controls for handling and disclosing inside information as outlined below:

(1) Identification and registration of inside information

Specifically, for the transmission and review of critical financial information in quarterly reports, interim reports, and annual reports, the Company has established a strict inside information management system. Whenever the Company is about to issue or review reports containing material financial data, the relevant departments will, in accordance with internal control procedures, list the names of all individuals who are aware of the information. All insiders of the information will be registered and subject to strict confidentiality controls. No insider is allowed to disclose, transfer, or disseminate the contents of the inside information without authorization. Through these measures, the Company effectively reduces the risk of inside information leakage and ensures compliance with legal and market regulatory requirements during significant decision-making and report disclosure processes.

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(2) Approval procedures for disclosure of inside information

Once inside information is identified, the relevant departments (such as the finance, legal, or compliance departments) will collaborate with the Board of Directors and senior management to determine whether the information needs to be disclosed under the requirements of the Hong Kong Listing Rules. If the decision is made to release inside information, it must be approved by the Board or an authorized representative. The Company will select the appropriate channel to release the inside information, such as issuing an announcement via the Hong Kong Stock Exchange's website, and adhering to the immediate disclosure requirements to ensure that all shareholders and market participants receive equal and transparent information in a timely manner. After the disclosure of inside information, the Company will continue to monitor market reactions and issue further announcements or clarifications when necessary, ensuring the completeness and accuracy of market information.

(3) Internal monitoring and review

To ensure compliance and effectiveness in the handling of inside information, the Company has established an internal monitoring mechanism to regularly review the processes for handling and disclosing inside information. The Company's compliance department will conduct an internal audit annually to assess the effectiveness of the management measures and procedures for inside information, and make improvements for any identified deficiencies. The Company has also set up an anonymous reporting mechanism, allowing employees to report any potential inside information leaks or improper handling to the monitoring team.

Based on a comprehensive assessment, the Board of Directors consider that, as of 31 December 2024, the Company has maintained effective internal control over financial reporting in all material respects in accordance with the Fundamental Regulatory Guidelines on Enterprise Internal Control and its supporting guidance as well as other regulatory requirements on internal control, and the Company has not found any material defect in non-financial reporting about internal control.

(B) SECURITIES TRANSACTIONS BY DIRECTORS

As an A + H share listed company, the Company has strictly complied with the relevant binding provisions on securities transactions by directors imposed by the regulatory authorities of Hong Kong and China Mainland and we insist on the principle of complying with the strictest provision, which is, implementing the strictest provision among the places of listing. We have adopted a set of standards not less exacting than the Model Code for Securities Transactions by Directors of Listed Issuers set out in Appendix C3 to the Hong Kong Listing Rules as the model code for securities dealings by Directors of the Company, based on which, the Company implemented the Management Rules in respect of the Shares of the Company held by the Directors, Supervisors and Senior Management of Huaneng Power International, Inc., which required the transfer of the Company's shares be strictly in accordance with the stipulations under relevant regulations, prohibits those who are in possession of securities transaction insider information using insider information in securities trading and sets out detailed rules for those who are in possession of insider information. Having made specific enquiries with all Directors, supervisors and senior management of the Company, none of the Directors, supervisors or senior management of the Company held shares of the Company. Except for the continuing connected transactions and connected transactions mentioned in this report, neither the directors nor any entities related to the directors have had any direct or indirect significant interest in any material transactions or arrangements conducted by the Company or any of its subsidiaries at any time during the year or at the year-end, or in any significant contracts entered into.

(C) SHAREHOLDERS' GENERAL MEETING

Over the years, the Company has not only been committed to operating and expanding the company's business in order to attain appropriate returns for shareholders, the Company also provides details on the Company's operations management and relevant information to shareholders in a timely and accurate manner through a variety of channels and methods, including: convening and holding general meetings in strict compliance with the Articles of Association, the Hong Kong Listing Rules and relevant regulations stipulated by the Securities and Futures Commission (the "SFC") in Hong Kong, and timely announcing relevant information to shareholders on an irregular basis according to the requirements of the Hong Kong Listing Rules.

During the year, the Company held a total of 2 general meetings, considering and approving 8 ordinary resolutions and 4 special resolutions, and a professional lawyer was invited to each general meeting as a witness to ensure all shareholders were treated equally and exercised their rights adequately. In 2024, the matters considered at the general meetings of the Company mainly included work reports of the Board and the Supervisory Committee of the Company for the year 2023, final financial report, and appointment of the auditor for the year, etc.

For details about the resolutions passed at general meetings during 2024, please refer to the announcements on such resolutions published by the Company on the website of the Hong Kong Stock Exchange.

During the year of 2024, the Company placed particular emphasis on shareholders' relations, maintaining communication with shareholders through various channels to facilitate mutual understanding between the Company and its shareholders. In particular, the Company has established a division and assigned designated staff to receive visitors, making its contact numbers publicly available and to answer telephone enquiries at any time. In addition, the Company's website was set up to present the latest updates and past results of the Company as well as the management body of the Company, so as to facilitate shareholders' and investors' comprehensive understanding of the Company.

For details about the Company's communication with shareholders and investors for the year 2024, please refer to the "Investor Relations" section of this annual report.

In order to safeguard the legitimate interests of the Company and its shareholders, to specify the duties, responsibilities and permission right of the shareholders' general meetings, to ensure the proper, efficient and smooth operation of the shareholders' general meeting and to ensure the shareholders' general meeting exercises its functions and powers according to law, the Company formulated the Rules of Procedures for the General Meetings of Huaneng Power International, Inc., such Rules apply to the general meetings of the Company and shall be binding on the Company, all shareholders, authorised proxies of the shareholders, directors, supervisors and other relevant personnel present at the meeting.

- Proposals at the general meeting shall be usually put forward by the board of directors. Where more than one-half of the independent directors request the Board of Directors to convene an extraordinary general meeting, they shall be responsible for putting forward the proposals to be examined at the meeting. The shareholders individually or jointly holding more than 3% (including 3%) of the total shares with voting rights of the Company are entitled to put forward provisional proposals at the general meeting in accordance with the relevant procedure specified in the applicable laws. Where the Supervisory Committee proposes to convene an extraordinary general meeting, it shall be responsible for putting forward proposals. Where shareholders individually or jointly holding more than 10% (including 10%) of the Company's shares with voting rights propose to convene an extraordinary general meeting, the proposing shareholders shall be responsible for putting forward the proposals.

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- Shareholders individually or jointly holding more than 3% (including 3%) of the Company's shares with voting rights are entitled to put forward proposals at the general meeting. The Board of Directors shall examine and approve such shareholders' proposals according to the following principles:

  (1) Relevance. The Board of Directors shall conduct examination of a proposal. If the proposal is directly relevant to the Company and falls into the jurisdiction of general meeting as required by laws, regulations and the Articles of Association, it shall be submitted to the general meeting for discussion. Otherwise no such submission shall be submitted to general meeting.

  (2) Procedures. The Board of Directors may decide on the procedural issues relating to the proposal. Where a proposal needs to be divided into different proposals or merged with other proposals to be voted on, consent of the person putting forward the original proposal is required. If the person putting forward the original proposal does not agree with any changes, the chairman of the general meeting may request the general meeting to decide on the procedural issues and conduct discussion according to the procedures decided by the general meeting.

- Where the shareholders individually or jointly holding more than 10% (including 10%) of the Company's shares with voting rights propose to convene an extraordinary general meeting or class shareholders' meeting, they may sign one or more written request(s) in identical form and contents to propose to the Board of Directors to convene an extraordinary general meeting or class shareholders' meeting and specify the topics for discussion at the meeting, and submit proposals complying with the requirements of The Rules of Procedure for the General Meeting of Huaneng Power International Co., Ltd. to the Board of Directors at the same time.

- The proposals put forward at the general meeting shall meet the following conditions:

  (1) The content of the proposals shall be in compliance with requirements stipulated by laws, regulations and the Articles of Association and shall fall within the business scope of the Company and within the jurisdiction of general meeting;

  (2) The theme of the proposal shall be clear and specific;

  (3) The proposal shall be submitted to the Board of Directors in writing.

- For any questions concerning the general meetings, please contact:

  Address: Capital Market Department
  Huaneng Power International, Inc.
  Huaneng Building,
  6 Fuxingmennei Street,
  Xicheng District, Beijing 100031,
  The People's Republic of China
  Contact: Ms. Xie Meixin or Mr. Hu Boxuan
  Phone: 010-63226590 010-63226557
  Email: xiemx@hpi.com.cn
  huboxuan@hpi.com.cn

(D) BOARD OF DIRECTORS

According to the Articles of Association of the Company, the board of directors of the Company consists of fifteen members. In the eleventh session of the board of directors, Mr. Wang Kui served as chairman and Executive Director; Mr. Wang Zhijie serves as vice chairman and Executive Director; Mr. Huang Lixin serves as Executive Director, President. The non-executive directors on the eleventh session of the board of directors include Mr. Du Daming, Mr. Zhou Yi, Mr. Li Lailong, Mr. Cao Xin, Mr. Li Haifeng, Mr. Ding Xuchun, and Mr. Wang Jianfeng. There are a total of five independent non-executive directors, accounting for one-third of the board members, namely: Mr. Xia Qing, Mr. He Qiang, Ms. Zhang Liying, Mr. Zhang Shouwen and Ms. Dang Ying.

During the Reporting Period, the Board of Directors of the Company held eight meetings including regular meetings and ad hoc meetings.

Details of the attendance of directors at the meetings of the eleventh session of board of directors are as follows:

Attendance at Meetings of the Directors on eleventh session of board of directors

Name	Number of meetings to be attended	Number of meetings attended in person	Number of meetings attended by proxy	Attendance rate (%)
Executive Directors				
Wang Kui	8	8	0	100%
Wang Zhijie	8	8	0	100%
Huang Lixin	8	8	0	100%
Non-executive Directors				
Du Daming	8	7	1	100%
Zhou Yi	8	6	2	100%
Li Lailong	8	7	1	100%
Cao Xin	8	5	3	100%
Li Haifeng	8	6	2	100%
Ding Xuchun	8	6	2	100%
Wang Jianfeng	8	8	0	100%
Independent Non-executive Directors				
Xia Qing	8	7	1	100%
He Qiang	8	8	0	100%
Zhang Liying	8	8	0	100%
Zhang Shouwen	8	8	0	100%
Dang Ying	8	8	0	100%

As stated in previous Corporate Governance Reports of the Company, the Company's Articles of Association set out in detail the duties and operational procedures of the Board (please refer to the Company's Articles of Association for details). The Board of the Company holds regular meetings to hear and review the report on the Company's operating results. Material decisions on operation shall be discussed and approved by the Board. Ad hoc meetings may be held when necessary to make timely decision. Board meetings include regular meetings and ad hoc meetings. Regular meetings of the Board include: annual meeting, first quarterly meeting, half-yearly meeting and third quarterly meeting.

All arrangements for regular meetings have been notified to all directors at least 14 days in advance and the Company has ensured that each director thoroughly understood the agenda of the meeting and fully expressed his/her opinions. The Company has established relevant mechanisms to ensure that the Board of Directors receives independent views and opinions, and reviews the implementation and effectiveness of these mechanisms annually. These mechanisms include, but are not limited to, regularly reviewing the qualifications, professional skills, and independence of the independent non-executive directors, as well as ensuring that they dedicate sufficient time to the Group, and obtaining independent directors' opinions through channels

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such as special meetings for independent directors. During the year, all Independent Non-executive Directors expressed their independent directors' opinions on their respective duties and convened special independent directors' meetings to review relevant proposals in accordance with regulatory requirements under the "Administrative Measures for Independent Directors of Listed Companies" newly promulgated by the China Securities Regulatory Commission. All meeting details are thoroughly recorded and kept in the Administration Office (Office of the Board of Directors) of the Company. During the year, the Board of Directors reviewed the implementation of the above mechanism and considers it to be appropriate and effective.

In addition, the Company has received a confirmation letter from each independent non-executive director regarding their independence in accordance with Rule 3.13 of the Hong Kong Listing Rules. The Company still believes that each independent non-executive director is indeed an independent individual.

The Directors of the Company took the initiative to comply with the provisions of laws, administrative regulations and the Company's Articles of Association and actively fulfilled their duty of loyalty and diligence. Apart from regular and ad hoc meetings, the Directors of the Company obtained adequate information through meeting such as the Chairman special meetings in a timely manner in order to monitor the objectives and strategies of the management, the Company's financial position and operating results and the execution and implementation of provisions of material agreements. The Directors of the Company reviewed corporate briefings and other data on a regular basis to learn about the production and operation of the Company. The Independent Directors provided opinions and suggestions on operation and management for the Company via on-site survey. The specific committees under the Board proactively performed their duties and made suggestions and proposals for the development of the Company, which provides grounds for the Board to make correct decisions.

During the period when the Board was not in session, the Chairman discharged part of the duties of the Board of Directors, including (1) to examine and approve the establishment or cancellation of proposals to develop construction projects; (2) to examine and approve the proposals of the President in relation to the appointment, removal and transfer of managers of various departments of the Company and managers of external branches; (3) to examine and approve plans on the use of significant funds; (4) to examine and approve proposals on the establishment or cancellation of branch or branch organs; (5) to examine and approve other outstanding issues.

The Board has summarized work for the past year and, in doing so, considered the opinions of the Supervisory Committee and the management. It believes that it has effectively fulfilled its duties and protected the interests of the Company and its shareholders.

Directors who attended the Company's 2023 Annual General Meeting held on 25 June 2024, were: Mr. Wang Kui, Chairman of the Eleventh Session of the Board of Directors and Executive Director; Mr. Wang Zhijie, Vice Chairman and Executive Director; Mr. Huang Lixin, Executive Director; Mr. Li Haifeng, Non-Executive Director; and Mr. Xia Qing, Mr. He Qiang and Ms. Zhang Liying, Independent Non-Executive Directors. Other directors were unable to attend. Directors who attended the Company's 2024 First Extraordinary General Meeting held on 12 December 2024, were: Mr. Wang Kui, Chairman of the Eleventh Session of the Board of Directors and Executive Director, Mr. Huang Lixin, Executive Director and Mr. He Qiang and Ms. Zhang Liying, Independent Non-Executive Directors. Other directors were unable to attend.

(E) CHAIRMAN AND PRESIDENT

The Company shall have a Chairman and a President who shall perform their duties respectively according to the Articles of Association.

1. Mr Wang Kui served as the chairman of the Board of Directors and the executive Director of the Company.

2. Mr Huang Lixin served as director and President of the Company and served as the chief accountant during the reporting period.

3. On 9 July 2024, Mr. Huang Lixin resigned as the chief accountant of the Company and Mr. Zhu Daqing was appointed as the chief accountant of the Company by the Board.

4. On 28 December 2024, Mr. Zhu Daqing resigned from his position of the chief accountant due to job transfer, and Mr. Huang Lixin, director and the President of the Company, acted as the chief accountant of the Company until the appointment of a new chief accountant by the Company.

The division of duties of the Board and the senior management is the same as what has been disclosed in previous Corporate Governance Reports.

(F) NON-EXECUTIVE DIRECTORS

According to the provisions of the Articles of Association, the term of office of members of the Board of the Company shall not exceed three years (inclusive of three years) and the members are eligible for re-election. However, the term of office of Independent Non-executive Directors shall not exceed six years (inclusive of six years) according to the relevant provisions of the CSRC.

The respective terms of office of the non-executive Directors are as follows:

Name of non-executive Directors	Term of office
Du Daming	2023.12.5-2026
Zhou Yi	2023.12.5-2026
Li Lailong	2023.12.5-2026
Cao Xin	2023.12.5-2026
Li Haifeng	2023.12.5-2026
Ding Xuchun	2023.12.5-2026
Wang Jianfeng	2023.12.5-2026

(G) DIRECTORS' REMUNERATION

According to the relevant laws of the PRC and the relevant provisions of the Articles of Association, the Board of the Company has established the Remuneration and Appraisal Committee. The committee operates normally under the Detailed Rules on the Work of the Remuneration and Appraisal Committee and in accordance with the terms of reference of the remuneration committee as set out in the Corporate Governance Code and is mainly responsible for studying the appraisal standards of the directors and senior management personnel of the Company, conducting appraisals and making proposals; responsible for studying and examining the remuneration policies and proposals of the directors and senior management personnel of the Company. The Remuneration and Appraisal Committee adopted the mode (ii) as set out under the rule E.1.2(c) of the Corporate Governance Code, which is to make recommendations to the Board on the remuneration packages of individual executive Directors and senior management, including benefits in kind, pension rights and compensation payments (including any compensation payable for loss or termination of their office or appointment). The

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total payroll, after examination by the Remuneration and Appraisal Committee, will then be submitted to the Board of Directors. The Executive Directors have entered into the director's service contracts in compliance with the requirements of the Hong Kong Stock Exchange.

Members of the eleventh session of the Remuneration and Appraisal Committee comprised of seven directors, including Mr. Zhang Shouwen, Mr. Wang Zhijie, Mr. Li Haifeng, Mr. Ding Xuchun, Mr. He Qiang, Ms. Zhang Liying, and Ms. Dang Ying, of whom Mr. Zhang Shouwen, Mr. He Qiang, Ms. Zhang Liying, and Ms. Dang Ying are independent non-executive Directors. Mr. Zhang Shouwen is the chairman of the eleventh session of the committee.

The Remuneration and Appraisal Committee operates in accordance with the Company's Detailed Rules on the Work of the Remuneration and Appraisal Committee. The committee's first meeting in 2024 was held on 18 March 2024, at which a report on the total payroll budget of the Company was heard and the arrangements regarding the total payroll for the year 2024 were approved. In the new fiscal year, the Remuneration and Appraisal Committee will conduct its work in accordance with the above-mentioned working rules as appropriate.

During the Reporting Period, the attendance at the meeting of the Remuneration and Appraisal Committee of the Board was as follows:

Name of meeting	Date of meeting	Members who attended the meeting in person	Members who attended the meeting by proxy
First Meeting of the Remuneration and Appraisal Committee under the eleventh session of the board of Directors in 2024	18 March 2024	Zhang Shouwen, Wang Zhijie, Li Haifeng, Ding Xuchun, He Qiang, Zhang Liying, Dang Ying	/

(H) NOMINATION OF DIRECTORS

According to the relevant laws of the PRC and the relevant provisions of the Articles of Association, the Board of the Company has established the Nomination Committee. The Nomination Committee operates under the Detailed Rules on the Work of the Nomination Committee and the terms of reference for nomination committees as set out in the Corporate Governance Code and is mainly responsible for studying the selection standards and procedures for candidates for directors and senior management personnel of the Company according to the directors' qualifications under the Companies Law and Securities Law and the needs of the operational management of the Company, and making proposals thereon to the Board; searching for qualified candidates for directors and suitable persons for senior management personnel on a wide basis; and examining the candidates for directors and suitable persons for senior management personnel and making proposals thereon. In order to achieve sustainable and balanced development, the Company has formulated the Board Member Diversity Policy and reviews the implementation and effectiveness of the Board Member Diversity policy annually. According to the relevant regulations, when determining the composition of the Board, the Company will consider the diversity of board members from multiple perspectives, including but not limited to gender, age, culture and educational background, professional experience, skills, knowledge and service tenure. The nomination of Directors by the Board shall be based on competence only, taking into account the diversity requirements of Board members. Currently, the composition of the Board members of the Company has taken into account the operation and management of the Company and relevant regulatory requirements. The nomination of the candidates of directors of the Company is mainly made by the shareholders. The nominations, after examination of the relevant qualification by the Nomination Committee, will be submitted to the Board of Directors. The President of the Company is appointed by the Board and the candidates for the Vice President and other management are nominated by the President. Such nominations, after examination of the relevant qualification by the Nomination Committee, will be submitted to the Board of Directors for approval. During the year, the Board of Directors conducted a thorough review and assessment of the Board Member Diversity Policy.The Board of Directors believes that the policy has been effectively implemented and has played a positive role in enhancing the Company's governance structure. Through the implementation of this policy, the composition of the Board of Directors has become more diverse, covering different backgrounds, professional fields, experiences, and skills, thereby providing a more comprehensive and multi-dimensional perspective for decision-making.

Moreover, the Board of Directors also believes that, with the support of the diversity policy, the overall composition of the Board of Directors is well-balanced and can effectively play its key role in corporate governance and management. By ensuring that the Board of Directors members possess diverse professional knowledge and experience, the Board of Directors is better equipped to respond to the ever-changing market environment and challenges, thereby providing a stronger foundation for the long-term development of the Company and maximizing shareholder value. The Board of Directors will continue to focus on and review the implementation of the policy and, in the future, will further optimize and adjust the relevant policies based on the Company's strategic development and changes in the external environment, to ensure the continuous improvement and innovation of the corporate governance structure.

The Nomination Committee under the eleventh session of the board of Directors comprises of 7 members: Mr. Xia Qing, Mr. Huang Lixin, Mr. Cao Xin, Mr. Wang Jianfeng, Mr. He Qiang, Mr. Zhang Shouwen and Ms. Dang Ying, of which Mr. Xia Qing, Mr. He Qiang, Mr. Zhang Shouwen and Ms. Dang Ying are independent non-executive Directors. Mr. Xia Qing is the chairman of the committee under the eleventh session of the board of Directors.

The Nomination Committee of the Board of Directors operates in a standardised manner in accordance with the Company’s Rules Governing the Work of the Nomination Committee. The first meeting of 2024 was held on 8 July 2024, at which the “Proposal on the Adjustment of the Senior Management of the Company” was heard and the “Report on the Review of the Qualifications of the Candidates for the Senior Management of the Company” was formed, and it was agreed that the report would be submitted to the Board of Directors of the Company for consideration.

The table below sets out Directors’ attendance at the meetings of Nomination Committee of the Board held during the reporting period.

Name of meeting	**Date of meeting**	**Members who attended the meeting in person**	**Members who attended the meeting by proxy**
The first meeting of the Nomination Committee under the eleventh session of the board of Directors in 2024	8 July 2024	Xia Qing, Huang Lixin, Cao Xin, Wang Jianfeng, He Qiang, Zhang Shouwen, Dang Ying	/

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(I) AUDITORS' REMUNERATION

As approved at the 2023 first extraordinary general meeting, Ernst & Young Hua Ming LLP was appointed as the Company's domestic auditor for 2024, and Ernst & Young was appointed as the Hong Kong auditor of the Company for 2024. The Company has not changed its auditors for the past three years. For the 12 months ended 31 December 2024, the audit fee, audit-related fee, tax compliance service fee and other fees amounted to RMB37.33 million, RMB3.60 million, RMB0.88 million and RMB1.21 million, respectively.

(J) AUDIT COMMITTEE

According to the requirements of the regulatory authorities of the jurisdictions where the Company is listed and the relevant provisions of the Articles of Association, the Board of Directors of the Company has established the Audit Committee which operates normally under the Detailed Rules on the Work of the Audit Committee and in accordance with the terms of references for audit committees as set out in the Corporate Governance Code and is mainly responsible for assisting the Board of Directors in supervising: (1) the authenticity of the financial statements of the Company; (2) the compliance by the Company with laws and regulatory requirements; (3) the qualification and independence of the independent auditors of the Company; (4) the performance of the independent auditors and the internal audit department of the Company; and (5) the control and management of the related transactions of the Company.

The Audit Committee under the Board of the Company holds four regular meetings per annum and has at least two separate meetings with the external auditors of the Company to hear reports on audit plans, work arrangements, audit results, etc. The Board formulates the Management Measures on Hotlines and Mailboxes for Informants, pursuant to which the Audit Committee is responsible for the management of the informants' hotlines and mailboxes.

Members of the Audit Committee under the eleventh session of the Board comprises of five independent non-executive Directors, namely Ms. Dang Ying, Mr. Xia Qing, Mr. He Qiang, Ms. Zhang Liying and Mr. Zhang Shouwen. Ms. Dang Ying is the chairman of the committee under the eleventh session of the Board.

During the Reporting Period, the Audit Committee held a total of eight meetings. As per Audit Committee's duties and in order to meet its responsibilities in its review of the quarterly (if relevant), half-yearly and annual results, its review of the risk management and internal control systems, the effectiveness of the Company's internal audit function, and its other duties under the Corporate Governance Code, the Audit Committee interviewed with the Company's legal advisors, external auditors, management and the relevant departments separately and exchanged ideas and communicated with them. With the understandings on the applicable laws and regulations of those jurisdictions in which the shares of the Company are listed, anti-fraud position in the Company, recruitment of staff, implementation and execution of internal control mechanism, audit work carried out by external auditors, and the preparation of the financial statement, the Audit Committee has rendered their views and opinions and made certain proposals.

During the Reporting Period, the attendance of meetings of the Audit Committee was as follows:

Name of meeting	Date of meeting	Members who attended the meeting in person	Members who attended the meeting by proxy
First meeting of the Audit Committee under the eleventh session of the board of Directors in 2024	27 February 2024	Dang Ying, Xia Qing, He Qiang, Zhang Liying, Zhang Shouwen	/
Second meeting of the Audit Committee under the eleventh session of the board of Directors in 2024	18 March 2024	Dang Ying, Xia Qing, He Qiang, Zhang Liying, Zhang Shouwen	/
Third meeting of the Audit Committee under the eleventh session of the board of Directors in 2024	22 April 2024	Dang Ying, Xia Qing, He Qiang, Zhang Liying, Zhang Shouwen	/
Fourth meeting of the Audit Committee under the eleventh session of the board of Directors in 2024	8 July 2024	Dang Ying, Xia Qing, He Qiang, Zhang Liying, Zhang Shouwen	/
Fifth meeting of the Audit Committee under the eleventh session of the board of Directors in 2024	19 July 2024	Dang Ying, Xia Qing, He Qiang, Zhang Liying, Zhang Shouwen	/
Sixth meeting of the Audit Committee under the eleventh session of the board of Directors in 2024	29 July 2024	Dang Ying, Xia Qing, He Qiang, Zhang Liying, Zhang Shouwen	/
Seventh meeting of the Audit Committee under the eleventh session of the board of Directors in 2024	11 September 2024	Dang Ying, Xia Qing, He Qiang, Zhang Liying, Zhang Shouwen	/
Eighth meeting of the Audit Committee under the eleventh session of the board of Directors in 2024	28 October 2024	Dang Ying, Xia Qing, He Qiang, Zhang Liying, Zhang Shouwen	/

(K) RESPONSIBILITY ASSUMED BY THE DIRECTORS IN RELATION TO THE FINANCIAL STATEMENTS

The Directors of the Company confirm that they shall assume the relevant responsibilities in relation to the preparation of the financial statements of the Company, ensure that the preparation of the financial statements of the Company complies with the relevant regulations and applicable accounting standards and that the financial statements of the Company will be published in a timely manner.

The responsibility statements made by the auditors of the Company in relation to the financial statements of the Company are set out in auditor's report on pages 114 to 120.

(L) SENIOR MANAGEMENT'S INTEREST IN SHARES

None of the senior management of the Company holds any shares of the Company.

CORPORATE GOVERNANCE REPORT

(M) STRATEGY COMMITTEE

According to the requirements of regulatory authorities of the jurisdictions where the Company is listed and the requirements of the Company's Articles of Association, the Board of the Company set up the Strategy Committee. The Strategy Committee operates normally under the Detailed Rules on the Work of the Strategy Committee and mainly takes the following responsibilities: (1) to study and make suggestions on the Company's long-term development strategies and plans; (2) to study and make suggestions on material investment and financing proposals which require the approval of the Board of Directors; (3) to study and make suggestions on material production and operational decision-making projects which require the approval of the Board of Directors; (4) to study and make suggestions on other material matters that will impact the Company's development; (5) to monitor the implementation of the above matters; (6) to be responsible for the Company's overall risk management and improve the Company's overall anti-risk ability; and (7) other matters required by the Board.

Members of the Strategy Committee under the eleventh session of the board of Directors comprises of seven directors, namely, Mr. Wang Kui, Mr. Wang Zhijie, Mr. Huang Lixin, Mr. Du Daming, Mr. Li Lailong, Mr. Xia Qing and Ms. Zhang Liying, of whom Mr. Xia Qing and Ms. Zhang Liying are independent non-executive Directors. Mr. Wang Kui is the chairman of the Strategy Committee under the eleventh session of the board of Directors.

In 2024, the Strategy Committee of the Board of Directors of the Company held two meetings to consider and approve the 2023 Annual Comprehensive Risk Management Report and Proposal on the Mid-term Adjustment Opinions of the Company's 14th Five-Year Plan for Development. All members of the committee studied the report prudently and scientifically, and actively expressed their opinions and suggestions to improve the report, which played an important role in improving the quality and efficiency of decision-making.

During the Reporting Period, Directors' attendance at the meeting of the Strategy Committee was as follows:

Name of meeting	Date of meeting	Members who attended the meeting in person	Members who attended the meeting by proxy
First Meeting of the Strategy Committee under the eleventh session of the board of Directors in 2024	14 June 2024	Wang Kui, Wang Zhijie, Huang Lixin, Du Daming, Li Lailong, Xia Qing, Zhang Liying	/
Second Meeting of the Strategy Committee under the eleventh session of the board of Directors in 2024	25 October 2024	Wang Kui, Wang Zhijie, Huang Lixin, Du Daming, Li Lailong, Xia Qing, Zhang Liying	/

(N) TRAININGS FOR DIRECTORS AND SENIOR MANAGEMENT

In 2024, the Directors, Supervisors and Senior Management of the Company attached great importance to strengthening their awareness of compliance and enhancing their ability to perform their duties, actively participated in various special training held by regulatory bodies and industry associations, and kept abreast of the updates of regulations and relevant policies in listed places. Throughout the year, the Directors, Supervisors and Senior Management of the Company attended the important meetings such as annual and interim supervisory meeting and bond and asset securitization business supervision conference of CSRC Beijing Bureau, the special training sessions on governance of listed companies in Beijing, and the enhancement seminar on Continuing Professional Development (CPD) for corporate governance professionals organized by the Hong Kong Institute of Corporate Governance (HKICG) , so as to continuously and thoroughly study the new regulatory developments such as the new Company Law and the new requirements on the standardised operation of listed companies. All Directors, Supervisors and Senior Management of the Company consciously abide by the laws, regulations and Articles of Association of the Company, and take the lead in "knowing the fear and keeping the bottom line" to provide a guarantee for the continuous improvement of corporate governance.

The Company organizes communication activities between the Company's legal advisor and the Audit Committee to introduce the report to all members of the Audit Committee every six months on update of the regulatory regulations of the listed places, the application of the relevant systems of the Company and the Company's compliance with the regulations of the listed places.

CORPORATE GOVERNANCE REPORT

According to the records provided by the Directors and Supervisors, we set forth below a summary of the trainings received by the Company's Directors and Supervisors during the period from 1 January 2024 to 31 December 2024:

Members of the eleventh session of the Board/Supervisory Committee	Type of continuing professional development plan
Wang Kui	A, B
Wang Zhijie	A, B
Huang Lixin	A, B
Du Daming	A, B
Zhou Yi	A, B
Li Lailong	A, B
Cao Xin	A, B
Li Haifeng	A, B
Ding Xuchun	A, B
Wang Jianfeng	A, B
Xia Qing	A, B
He Qiang	A, B
Zhang Liying	A, B
Zhang Shouwen	A, B
Dang Ying	A, B
Cao Shiguang	A, B
Kou Yaozhou	A, B
Xia Aidong	A, B
Song Taiji	A, B
Zhu Tong	A, B
Wang Yu	A, B

Notes:

A: Attending briefings and/or seminars.

B: Reading seminar materials and updates on the latest developments of the Hong Kong Listing Rules and other applicable regulatory requirements.

All the Directors and Supervisors must submit their training records to the Company on a quarterly basis. The Company Secretary will keep the records for regular inspections.

(O) TO CONVENE EXTRAORDINARY BOARD MEETINGS

An extraordinary Board meeting may be held at the request of any shareholders representing one tenth or more of the voting rights of the Company. The Chairman shall, within ten days upon receipt of such request, convene and chair such meeting.

(P) TO MAKE ENQUIRIES TO THE BOARD

The shareholders shall have access to the relevant information of the Company in accordance with the provisions of the Articles of Association, including the Articles of Association of the Company, the share capital, the minutes of shareholders' meetings and the resolutions of Board meetings and meetings of the Supervisory Committee.

(Q) INSURANCE FOR DIRECTORS AND PERMITTED INDEMNITY PROVISIONS

The Company has renewed its Directors' Liability Insurance policy of RMB100 million in 2024 to minimise their risks arising from the performance of their duties. The directors of the Company are entitled to be indemnified for all the costs, charges, losses, damages and expenses which he/she may incur in or sustain by the execution of his/her duties or by the exercise of his/her powers as a director of the Company or otherwise in relation thereto subject to the applicable laws and under the coverage of directors liability insurance taken out by the Company for the directors. These provisions are valid during the year ended 31 December 2024 and remain to be valid as at the date of this report.

(R) COMPANY SECRETARY

Mr. Huang Chaoquan has been acting as the Company Secretary of the Company under the Hong Kong Listing Rules since 22 May 2017, whose resume is set out in the section headed "Profiles of Senior Management". During the Reporting Period, Mr. Huang Chaoquan has complied with relevant professional training requirements under Rule 3.29 of the Hong Kong Listing Rules.

(S) DIVERSITY

The Company's eleventh board of directors has two female directors. The Company believes that it has achieved board diversity and will continue to abide by the Company's Board Member Diversity Policy. The Board of Directors will regularly monitor its gender composition and, depending on the business needs and development plans of the Group, set goals for further gender diversity at the Board level when necessary. In determining the composition of the board of directors, consideration will be given to various aspects, including but not limited to gender, age, cultural and educational background, professional experience, skills, knowledge, and tenure, with an emphasis on maintaining gender balance.

The industry in which the Group operates has traditionally been male-dominated, and the overall gender ratio of employees in the Group is approximately 4:1. All senior management personnel are male. Based on the characteristics of the industry in which the Group operates and the operational needs of the Group, the Board of Directors believes that the current gender ratio of employees is appropriate. The Group has not set any plans or measurable goals for further expanding gender diversity at the employee level. However, the Board will regularly reflect on the Company's employment culture and review whether it remains aligned with the Company's development strategy in the face of a constantly changing environment.

CORPORATE GOVERNANCE REPORT

The Company has always adhered to, and will continue to uphold, the two key principles of lawful and equal employment. All-rounded diathesis shall be considered in recruitment and candidates of diverse genders, nationalities, ethnics, religious beliefs and cultural backgrounds shall be provided with equal opportunities and labor protection. The Company shall uphold the principal of equal pay for equal work with no discrimination against either sex and eradicates forced labor and employment discrimination, and make sure that the equal employment policy runs through the recruitment process for every employee. As of the date of this report, the Group is not aware of any factors or circumstances that would make achieving gender diversity among all employees (including senior management) more challenging or less relevant.

No significant difficulties have been identified so far that impairs gender diversity.

(T) MAJOR CHANGES IN THE ARTICLES OF ASSOCIATION

During the reporting period, the Company has made amendments to the Articles of Association, which mainly include (i) the relevant amendments to bring the Articles of Association into compliance with the Listing Rules, which require listed issuers to publish corporate communications to their security holders by electronic means since 31 December 2023; and (ii) the shortening of the time limit for giving notice of general meetings to comply with the relevant laws and regulations in the PRC and to enhance the efficiency of the proceedings. Please refer to the announcement of the Company dated 29 May 2024 and the circular of the Company dated 8 June 2024 for further details.

(U) COMPLIANCE WITH RELEVANT LAWS AND REGULATIONS

To the best of the knowledge of the Board and Management, the Group has complied with relevant laws and regulations on issues that have a significant impact on the Group's business and operations. During the year, the Group did not violate or fail to comply with relevant applicable laws and regulations.

(V) SHAREHOLDERS' COMMUNICATION POLICY

The Company is committed to continuously promoting investor relations efforts, enhancing communication with shareholders, and increasing investors' understanding of the Company. In addition to the Company's periodic reports and announcements, the Company also publishes news, solutions and products, social responsibility information, and the latest developments on its official website, ensuring that investors are promptly informed of the Company's latest progress. The Company facilitates investor feedback through various channels, such as an investor hotline, email, the Shanghai Stock Exchange's investor relations interaction platform, and by collecting investor questions before performance briefings.At the same time, to promote communication between the Company and investors, the Company reports on its business operations and financial data at performance briefings and answers questions from investors and analysts. The Company regards the annual general meeting as a key event in its calendar year, with directors and senior management making every effort to attend, engage with investors, and address any questions.

During the Reporting Period, the Board has reviewed the implementation and effectiveness of the Shareholders' communication policy and considers the Company's communication policy effective, as detailed in the section on "Shareholders' General Meetings" of the Corporate Governance Report and in "Investor Relations" of this report.

(W) DESCRIPTION OF THE COMPANY'S SIGNIFICANT RELATIONSHIPS WITH ITS EMPLOYEES, CUSTOMERS AND SUPPLIERS

The Company considers its employees to be a valuable asset. The Company focuses on the career development of employees, optimizes talent allocation and development environment, provides multiple career development channels, continuously optimizes the selection process and assessment mechanism for technical skills positions, provides a platform for employees to unleash the talents. At the same time, the Company provides the employees with continuous training and development opportunities to achieve their career development. In addition, the Company believes that maintaining good relationships with its business partners and the companies that operate banking business is essential to achieving the Company's long-term objectives. During the Reporting Period, there were no significant disputes between the Company and its business partners and companies that operate banking business.

INVESTOR RELATIONS

PHILOSOPHY OF INVESTOR RELATIONS

The Company has always highly valued the management of investor relations since its listing. The Company communicates with all investors in a wholehearted, equal and respectful manner through timely and diversified two-way channels, enhancing and perfecting the management of investor relations of the Company. In addition, the Company also values the two-way interactive communication of "disclosure" and "adoption". As to "disclosure", the Company discloses information including financial position and operating performance to investors accurately, fairly and comprehensively in a responsible manner, which helps investors to understand and recognize the current situation and future development strategy of the Company. As to "adoption", the Company makes ready various channels to collect opinions of investors to adopt suggestions and ideas related to its operating activities. Such two-way communication effectively improves the operation management ability of the Company and ultimately maximizes the interests of the Company and all shareholders as a whole.

MECHANISM OF INVESTOR RELATIONS

Establishing meticulous organization and enhancing system development

The Company sets up specific information disclosure organizations (Information Disclosure Committee and Information Disclosure Work Team) and holds routine information disclosure meetings, making clear the work flow for information disclosure of the Company and guaranteeing the compliance and time effectiveness of information disclosure.

In the meantime, the Company has formulated the Rules on Information Disclosure Management, the Rules on Related Party Transactions Management, the Rules on Investor Relations Management, the Rules on the Work of the Information Disclosure Committee, the Rules on Insider Information Management and the Rules on the Annual Report Information Disclosure Significant Errors Accountability, etc., specifying the basic principles, targets, procedures, contents of disclosure, registration and filing of insider information and related accountability. The promulgation and implementation of these regulations further enhanced the information disclosure system of the Company, strengthened the discipline of the Company's information disclosure, prevented and minimized the insider dealing activities, improved the authenticity, accuracy, completeness and timeliness of information disclosure, so as to protect the legal interests of shareholders.

In addition, the Company has also formulated the "Internal Control System" as well as the "Internal Control Handbook" according to the relevant requirements of the State and Sections 302 and 404 of the "Sarbanes-Oxley Act of 2002", and further enhanced our corporate governance and ensured truthful, timely, accurate and complete information disclosure.

The Company has established a complete and effective control system for the entire process of the information disclosure, so that the Company was able to control potential risks in information disclosure effectively and ensure that all information disclosed by the Company is regulated and effective since its listing. With its timely, accurate and sufficient information disclosure, the Company has been well recognized by domestic and overseas investors.

Broaden channels and effective communication

In view of the different needs and nature of different investors – existing investors, potential investors, institutional investors and retail investors, the Company actively holds a variety of investor relations activities in various forms, including phone enquiries, emails, analyst conferences, one-on-one meetings, investment forums, roadshows and reverse roadshows, according to the characteristics of different investors, with a view to achieve all-round and effective communication and establish long-term and stable relations of mutual trust.

The Company insists on handling daily calls and visits made by investors properly. By consistently updating and sorting out the investor database, expanding the investor communication network of the Company, and holding two-way interactive investor relations activities, the Company is able to enhance the understanding and knowledge of investors about the Company, adopt suggestions and ideas put forward by investors, create two-way communication channels and platforms for smooth communication with investors and maximize the interests of the Company and investors.

Timely disclosure and continuous follow-up

The Company discloses its information in a truthful, accurate, complete and timely manner strictly according to the requirements of the regulatory authorities of its listing places, thereby increasing the transparency of and drawing market attention to the Company and enhancing the image of the Company in capital markets. In the meantime, the Company follows up feedbacks from investors consistently and ensures effective communication, with a view to establish stable investor relations.

In 2024, the Company issued a total of 262 domestic and overseas announcements.

NOTE TO SHAREHOLDERS

Dividend Distribution

The Board of Directors recommends the payment of a dividend of RMB0.27 (tax inclusive) per share for 2024 to all shareholders. The dividends will be denominated and announced in RMB, of which dividends on domestic shares will be paid in RMB whereas dividends on foreign shares traded on the Hong Kong Stock Exchange will be paid in Hong Kong dollars. All dividends shall be paid upon the approval of the Shareholders at the annual general meeting of the Company.

DIVIDEND DISTRIBUTION

The Company's Articles of Association clearly defines the Company's cash dividend policy, i.e. when the Company's earnings and accumulative retained profits for the current year are positive, and on the condition that the Company's cash flow is able to meet the need for its ordinary operation and sustainable development, the Company shall adopt a cash dividend policy on the principle that the cash dividend payout shall be no less than 50% of the realized distributable profit stated in the consolidated financial statements that year.

In the future, the Company will continue to adhere to a proactive, balanced and stable dividend policy, and persistently enhance its profitability, striving for realization of increasing returns to shareholders.

DIVIDEND PAYMENT

Since the listing of the Company, shareholders have given great support to and cared much for the Company. The Company has also generated returns that have been growing continuously and steadily over the years. The Company has been paying dividends to shareholders since 1998, with an accumulated dividend of RMB65.827 billion paid.

INVESTOR RELATIONS

Year	Dividend per share (RMB)	Earnings per share (RMB)	Payout ratio
1994	–	0.17	N/A
1995	–	0.24	N/A
1996	–	0.27	N/A
1997	–	0.33	N/A
1998	0.08	0.33	24.24%
1999	0.09	0.33	27.27%
2000	0.22	0.44	50.00%
2001	0.30	0.60	50.00%
2002	0.34	0.65	52.31%
2003*	0.50	0.90	55.56%
2004	0.25	0.44	56.82%
2005	0.25	0.4	62.50%
2006	0.28	0.50	56.00%
2007	0.30	0.51	58.82%
2008	0.10	-0.33	N/A
2009	0.21	0.41	51.22%
2010	0.20	0.28	71.43%
2011	0.05	0.08	62.50%
2012	0.21	0.39	53.85%
2013	0.38	0.74	51.35%
2014	0.38	0.76	50.00%
2015	0.47	0.94	50.00%
2016	0.29	0.56	51.79%
2017	0.10	0.10	100.00%
2018	0.10	0.03	333%
2019	0.135	0.01	1,350%
2020	0.18	0.04	450%
2021	–	-0.81	N/A
2022	–	-0.61	N/A
2023	0.20	0.35	57.14%
2024**	0.27	0.46	58.78%

* The Company's profit distribution plan for 2003 included a cash dividend of RMB5 together with bonus issue of 10 shares for every 10 shares.

** The proposed 2024 dividend distribution plan will be implemented after having obtained approval from shareholders at the annual general meeting.

INVESTOR RELATIONS ACTIVITIES

Results conference

The Company insists on proactively promoting its performance at a frequency higher than that required by the regulatory authorities as soon as the quarterly periodic report is released. In 2024, the Company held the conference to promote the annual results of 2023 at both Beijing headquarters and Hong Kong, and organized telephone conferences to promote the first quarter results, the interim results and the third quarter results of 2024 to global investors. In order to actively implement the regulatory requirements, the chairman and other management of the Company attended the Results conferences in strict accordance with the regulatory requirements, and also invited independent directors to attend the conferences, which strengthened the authority and standardization of results conference. During the conferences, the Company communicated with investors on the hot topics in the market, expounded the Company's development concept and operation situation, and conveyed the Company's value.

Investment forums and investor meetings

In 2024, the Company actively participated in investment forums and investor exchange activities organized by domestic and foreign institutions and received more than 20 surveys by institutional investors, including more than 10 on-site surveys with over 100 participants. In addition, the Company engaged in thematic activities such as the Shanghai Stock Exchange's "High-Quality Development Group Roadshow for Listed Companies," the "I am a Shareholder: Visiting Listed Companies" campaign, and the energy sector investor conference hosted by the China Association of Public Companies (CAPCO). These efforts strengthened our commitment to fostering the healthy development of capital markets and industry sectors.

Visits by and general enquiries from investors

In 2024, the Company carried out daily investor relations maintenance in an orderly manner. The Company provided round-the-clock assistance to retail investors, received more than 300 telephone inquiries from retail investors, and paid attention to the SSE E-interactive platform in real time, promptly replied to 58 questions from investors on the platform. Through a dual approach of "going out" and "bringing in", the Company ensured timely responses to investor concerns, guided market expectations effectively, and strengthened market understanding and confidence.

REPORT OF THE BOARD OF DIRECTORS

The Directors hereby presents the annual report together with the audited financial statements for the year ended 31 December 2024.

SUMMARY OF OPERATING RESULTS

The Board of Directors of the Company hereby announces the audited operating results of the Company and its subsidiaries for the year ended 31 December 2024.

For the twelve months ended 31 December 2024, the Company and its subsidiaries achieved consolidated operating revenue of RMB245,551 million, representing a decrease of 3.48% compared to the same period last year. The net profit attributable to equity holders of the Company amounted to RMB10,185 million, representing an increase of RMB1.827 billion or 21.86% from the same period last year. Earnings per share amounted to RMB0.46. The Board is satisfied with the Company's performance over the past year.

Details of the operating results are set out in the financial statements.

The Board has proposed to declare a cash dividend of RMB0.27 (inclusive of tax) for each ordinary share of the Company held by shareholders.

BUSINESS REVIEW OF YEAR 2024

In 2024, the Company stayed focused on the main objective of accelerating the construction of a world-class enterprise, actively responded to evolving circumstances and challenges, and maintaining a steady and progressive approach. By uniting efforts and striving for progress, the Company made further improvements in power generation, business development, green transformation, technological innovation, etc., and has reached a new level of high-quality development.

1. Operating Results

For the year ended 31 December 2024, the Company achieved operating revenue of RMB245,551 million, representing a decrease of 3.48% compared to the same period last year. Net profit attributable to equity holders of the Company amounted to RMB10,185 million, representing an increase of RMB1.827 billion or 21.86% as compared with the same period last year. The earnings per share amounted to RMB0.46.

As at the end of 2024, net assets per share of the Company amounted to RMB4.05, representing an increase of 7.43% as compared with the same period last year.

The Audit Committee of the Company convened a meeting on 24 March 2025 and reviewed the 2024 annual results of the Company.

2. Power Generation

In 2024, adhering to the principle of coordinating quantity and price with a focus on efficiency, the Company strengthened policy research, market analysis and internal professional coordination, continually optimised marketing strategies, actively responded to the opportunities and challenges in the electricity and heating markets, and made every effort to secure higher electricity transaction prices and heating prices while striving to generate more profitable electricity. On a consolidated basis, the total electricity sold by the Company's domestic operating power plants amounted to 452.939 billion kWh, representing a year-on-year increase of 1.13%. The average on-grid tariff of the Company's domestic power plants was RMB494.26 per MWh, representing a year-on-year decrease of RMB14.48 per MWh. The annual average utilisation hours of the Company's domestic power plants were 3,556 hours, representing a year-on-year decrease of 220 hours. In particular, the utilisation hours of coal-fired power generating units were 4,285 hours, representing a year-on-year decrease of 103 hours. The Company proactively explored the heating market and increased heating coverage, with the total heat supplied by the Company amounted to 341 million GJ, representing a year-on-year decrease of 0.84%.

3. Fuel Procurement

In 2024, the Company accurately assessed the market trend, strengthened the implementation of national policies, actively promoted the high-quality signing and performance of medium and long-term contracts for thermal coal, and continuously optimised the supply structure for domestic and foreign trade, achieved remarkable results for fuel cost control, and successfully ensured the supply of electricity and heat during the peak summer periods, winter heating seasons, and other critical times. During the year, the Company purchased a total of 207 million tons of coal, and the fuel cost per unit was RMB300.31 per MWh, representing a year-on-year decrease of RMB26.12 per MWh.

4. Environmental Policy and Production

The Company's safety production, technical-economic and energy consumption indicators remained at a good level throughout the year. In 2024, the average equivalent availability rate of the Company's domestic thermal power generating units was 93.67%, the coal consumption for power supply was 293.90g/kWh and the auxiliary power consumption rate of plants was 4.44%. With respect to air pollution emissions, the Company achieved a full coverage of ultralow emission across all coal-fired power generating units. With respect to treatment of wastewater discharge and coal yards and ash yards, the Company has allocated funds to carry out environmental technological transformation projects such as wastewater treatment, coal yard enclosure, and ash yard renovation in power plants in key regions. All power plants have accelerated environmental retrofitting projects to ensure that pollutant emissions strictly comply with discharge permits and other ecological and environmental protection policies.

5. Project Development

The Company adhered to a green and low-carbon transformation and development strategy, focused on the implementation of projects, and steadily advanced the construction of power generation projects. During the year, the Company newly added a total of 9,692.76 MW of controllable power generation capacity, of which 9,417.71 MW was from newly installed new energy capacity. As of 31 December 2024, the Company's installed controllable power generation capacity was 145,125 MW, including 18,109 MW of controllable wind power capacity and 19,836 MW of controllable solar power capacity, with low-carbon clean energy accounting for approximately 35.82% of the total installed capacity.

6. Scientific and Technological Innovation

The Company continued to make significant investments in research and development and achieve remarkable progress in scientific and technological innovation while steadily advancing the commercialization of technological achievements. In 2024, Huaneng 18MW ultra-large wind turbine was completed in Yingkou, Liaoning Province. The world's first low-temperature integrated near-zero pollutant emission system was put into operation at Huaneng Linyi Power Plant. A thousand-ton-scale pilot facility for carbon dioxide capture from coal-fired flue gas using low-temperature adsorption technology was put into operation at Huaneng Yueyang Power Plant, achieving efficient simultaneous removal of flue gas pollutants and carbon dioxide. China's first molten salt thermal storage integrated with a million-kilowatt unit, a demonstration project for frequency modulation, and peak shaving was commissioned at Huaneng Haimen Power Plant, which marked the first fully domestically produced and operational molten salt system control equipment in China. China's first set of flue-gas desulfurization slurry waste heat recovery and energy-saving system was put into operation at Huaneng Yangliuqing Power Plant. Throughout the year, a total of 1,021 invention patents, 746 utility model patents and 316 international patents were granted to the Company and its subsidiaries.

REPORT OF THE BOARD OF DIRECTORS

7. Overseas Business

Tuas Power Ltd. ("Tuas Power"), a wholly-owned subsidiary of the Company in Singapore, actively responded to the adjustment of Singapore's electricity market policy, swiftly adapting to market changes, continued to promote lean management and maintained the long-term safe and stable operation of units. Its power generation market share for the year was 19.2%, maintaining a strong presence in the electricity market. Tuas Power actively strengthened cooperation with fuel suppliers and continuously to optimised its supply structure, and ensured a stable fuel supply. Tuas Power actively expanded the retail market, continuously optimised the retail contract structure, and secured higher-margin retail electricity contracts in advance. During the year, Tuas Power achieved a pre-tax profit of RMB2,683 million, representing a year-on-year decrease of RMB1,672 million, while maintaining a solid revenue level.

The Company has continuously improved its business management in Pakistan, maintaining safe operations for over 2,700 days and winning a number of corporate social responsibility awards in Pakistan for 6 consecutive years. The Company deepened efforts to enhance quality and efficiency, greatly reduced production and management costs, strengthened fund management, and improved electricity fee collection, achieving the best profitability in 2024 since commissioning, with operating revenue of RMB3,528 million and pre-tax profit of RMB974 million, representing a year-on-year increase of RMB369 million.

PROSPECTS FOR 2025

In 2025, the Company will focus on accelerating the construction of a world-class enterprise, diligently implementing the regulatory requirements of the listing location, adhering to the overall principle of seeking progress while maintaining stability. The Company will deepen and enhance core capabilities such as risk control, value creation, new development drivers, and reform-driven power. The goal is to ensure the full completion of all annual objectives and the tasks, striving to create a new phase of high-quality development for the Company.

In terms of power construction, the Company will focus on driving green and low-carbon transformation, vigorously developing renewable energy, and continuously optimizing the development of coal-fired power. The Company will strategically prioritize peak-shaving gas-fired power. Based on safe development, centered on quality and efficiency, supported by technological innovation, and using modern management as a means, the Company will comprehensively manage safety, quality, cost, technological innovation, and smart infrastructure. This approach will ensure a substantial improvement in quality and reasonable growth in quantity, contributing to the construction of a new type of power system.

In terms of power generation, while ensuring the operation and maintenance of clean energy power generation systems, the Company also emphasizes the fundamental and regulatory role of existing coal-fired power units within the overall energy security system. The Company actively conducts life extension evaluations and upgrades, maintaining the health of emergency backup units. The Company is also actively developing the heating industry and upgrading integrated energy services. Additionally, the Company conducts in-depth research on the application prospects of biomass-coupled power generation and captures market opportunities. In line with the demands of ecological civilization construction in various regions, the Company is committed to implementing environmental protection and governance measures, striving to strengthen its leadership in safety production and energy-saving and environmental protection.

In terms of power marketing, the Company will adhere to a strategy of coordinating quantity and price, prioritizing efficiency. The Company will closely monitor changes in the electricity market, comprehensively assess market competition and electricity price trends, and fully explore electricity generation potential, aiming for positive growth in power generation throughout the year. The Company will make every effort to ensure the success of electricity market transactions in 2025, focusing on key regions and conducting research on trading strategies for coal-fired and renewable energy. The goal is to maintain electricity prices at a reasonable level. The Company will actively expand its electricity sales market, strengthen the Huaneng electricity sales brand, and improve sales revenue. Additionally, the Company will optimize its carbon trading strategy to reduce compliance costs. In 2025, the Company will strive to achieve a domestic power generation of approximately 485 billion kWh.

In terms of fuel procurement, the Company will focus on controlling fuel prices, scientifically balancing supply security with cost control, ensuring supply safety while managing fuel costs. The company will work to improve the quality of long-term coal supply contract performance, leveraging long-term contracts as a stabilizing force. The Company will strictly implement the coal-fired power industry collaboration plan and fully utilize internal supply for backup security. The company will enhance market analysis, seize market opportunities, and optimize procurement strategies, adhering to the "low-storage, high-consumption" approach to ensure fuel costs remain manageable. At the same time, the Company will further optimize the coal procurement structure, precisely source imported coal, and work to reduce procurement costs.

In terms of financing, the Company will further closely monitor and carefully study macroeconomic policy trends, fully leverage its credit and management advantages, actively seize policy opportunities, and expand funding sources. The Company will optimize the timing of capital allocation to ensure stable cash flow and a reasonable capital structure. The Company will persist in focusing on financial risk prevention, striving to reduce funding costs while ensuring the safety of funds.

REPORT OF THE BOARD OF DIRECTORS

SUMMARY OF FINANCIAL INFORMATION AND OPERATING RESULTS

Please refer to the Financial Highlights on pages 10 to 11 for the summary of the operating results and assets and liabilities of the Company and its subsidiaries as at 31 December 2024 and for the accounting year ended 31 December 2024.

Please refer to pages 121 to 123 of the financial statements for the operating results of the Company and its subsidiaries for the accounting year ended 31 December 2024, which have been reviewed by the Company's Audit Committee.

DISTRIBUTABLE RESERVE

The distributable reserve as at 31 December 2024 calculated in accordance with the Company's Articles of Association is set out in Note 22 to the financial statements prepared under the IFRS accounting standards.

CONTINGENT LIABILITIES

For information regarding the Group's contingent liabilities, please refer to Note 44 of the financial statements prepared under the IFRS accounting standards.

DIVIDENDS

The Company has been paying dividends to shareholders since 1998, with a cumulative dividend payout amounting to RMB65.827 billion.

The Company's articles of association provided for its cash dividend policy, stating that the Company may pay cash dividends in any year when its earnings and accumulated undistributed profits are positive and its cash flows are sufficient for the normal conduct of business and sustainable development of the Company, provided that the profits to be distributed by the Company in cash shall, in principle, not be less than 50% of the distributable profits realized in that year as indicated in the consolidated financial statements.

In accordance with the requirements of relevant laws and regulations and the articles of association of the Company, the Company adheres to the profit distribution policy whereby the distributable profits shall be the lower of distributable profits as stated in the financial statements prepared under China Accounting Standards for Business Enterprises ("China Accounting Standards") and the IFRS accounting standards.

The Company's dividend distribution proposal for 2024: a cash dividend of RMB0.27 (inclusive of tax) per share will be distributed to all shareholders. All dividends shall be paid subject to the approval of the shareholders at the annual general meeting. It is expected that the Company will pay the final dividend on or before 29 August 2025, after the distribution plan has been approved at the annual general meeting of the Company.

TAXATION ON RECEIPT OF THE PROPOSED 2024 FINAL DIVIDEND

Non-Resident Individual Shareholders

In accordance with the requirement under the Guo Shui Han [2011] No.348 issued by the State Administration of Taxation of the People's Republic of China, the Company is obligated to withhold and pay individual income tax on dividends on behalf of the individual H Shareholders ("Individual H Shareholders"); and Individual H Shareholders are entitled to certain preferential tax treatments according to the tax treaty between the country in which the Individual H Shareholders reside and the PRC and the provisions in respect of the tax arrangements between mainland China and Hong Kong (Macau). The Company shall withhold and pay individual income tax at the rate of 10% on behalf of the Individual H Shareholders (who are Hong Kong residents, Macau residents or residents of those countries having treaties with the PRC for an individual income tax rate on dividends of 10%). For Individual H Shareholders who are residents of those countries having treaties with the PRC for an individual income tax rate on dividends of less than 10%, the Company shall withhold and pay individual income tax on behalf of the individual pursuant to the relevant requirements under the Circular of the State Administration of Taxation in relation to Issuing the Administrative Measures on Preferential Treatment Entitled by Non- resident Taxpayers under Tax Treaties (SAT Circular [2019] No.35) (《國家税務總局關於發佈<非居民納税人享有協定待遇管理辦法>的公告》(國家税務總局公告2019年第35號)) (the "Measures"). For individual H Shareholders who are residents of those countries having treaties with the PRC for an individual income tax rate on dividends of more than 10% but less than 20%, the Company shall withhold and pay individual income tax at the actual tax rate under the treaties. For Individual H Shareholders who are residents of those countries which have not entered into any tax treaties with the PRC or have entered into treaties with the PRC for an individual income tax rate on dividends of 20% or under other circumstances, the Company shall withhold and pay individual income tax at the tax rate of 20%.

Non-resident Enterprise Shareholders

In accordance with the "Enterprise Income Tax Law of China" and its implementation regulations which came into effect on 1 January 2008, the Company is required to withhold and pay enterprise income tax at the rate of 10% on behalf of the non-resident enterprise shareholders whose names appear on the register of members for H share of the Company when distributing 2024 final dividend to them. For H shares of the Company registered other than in the name(s) of individual(s), including HKSCC Nominees Limited, other nominees, trustees, or other organisations or groups, shall be deemed to be shares held by non-resident enterprise shareholder(s). On the basis, enterprise income tax shall be withheld from dividends payable to such shareholder(s).

The Company shall comply with the relevant rules and regulations to withhold and pay enterprise income tax on behalf of the relevant shareholders with reference to the register of members of the Company as of the record date.

REPORT OF THE BOARD OF DIRECTORS

Profit Appropriation for Investors of Northbound Trading

For investors of The Stock Exchange of Hong Kong Limited (the "Hong Kong Stock Exchange") (including enterprises and individuals) investing in the A shares of the Company listed on the Shanghai Stock Exchange (the "Northbound Trading"), their dividends will be distributed in RMB by the Company through China Securities Depository and Clearing Corporation Limited to the account of the nominee holding such Shares. The Company will withhold and pay income taxes at the rate of 10% on behalf of those investors and will report to the tax authorities for such withholding. For investors of Northbound Trading who are tax residents of other countries and whose country of domicile is a country which has entered into a tax treaty with the PRC stipulating a dividend tax rate of lower than 10%, those enterprises and individuals may, or may entrust a withholding agent to, apply to the competent tax authorities for the entitlement of the rate under such tax treaty. Upon approval by the tax authorities, the paid amount in excess of the tax payable based on the tax rate according to such tax treaty will be refunded. Those enterprises or individuals shall collect and retain the relevant materials for future reference according to the requirement of the Measures.

The record date and the date of appropriation of cash dividends and other arrangements for the investors of Northbound Trading will be the same as those for the holders of A Shares of the Company.

Profit Appropriation for Investors of Southbound Trading

For investors of the Shanghai Stock Exchange and Shenzhen Stock Exchange (including enterprises and individuals) investing in the H Shares of the Company listed on Hong Kong Stock Exchange (the "Southbound Trading"), the Company has entered into the Agreement on Appropriation of Cash Dividends of H Shares for Southbound Trading (港股通H股股票現金紅利派發協議) with China Securities Depository and Clearing Corporation Limited, pursuant to which, China Securities Depository and Clearing Corporation Limited, as the nominee of the holders for Southbound Trading, will receive all cash dividends distributed by the Company and distribute the cash dividends to the relevant investors of Southbound Trading through its depositary and clearing system. The cash dividends for the investors of Southbound Trading will be paid in RMB.

Pursuant to the Notice on the Tax Policies Related to the Pilot Program of the Shanghai-Hong Kong Stock Connect (關於滬港股票市場交易互聯互通機制試點有關稅收政策的通知) (Caishui [2014] No.81) and the Notice of the Ministry of Finance, State Administration of Taxation and China Securities Regulatory Commission on the Tax Policies Related to the Pilot Program of the Shenzhen-Hong Kong Stock Connect (財政部、國家稅務總局、中國證監會關於深港股票市場交易互聯互通機制試點有關稅收政策的通知) (Caishui [2016] No. 127) for dividends received by domestic investors from investing in H shares listed on the Hong Kong Stock Exchange through Shanghai-Hong Kong Stock Connect and Shenzhen-Hong Kong Stock Connect, the companies of such H shares shall withhold and pay individual income tax at the rate of 20% on behalf of the investors. For dividends received by domestic securities investment funds from investing in H shares listed on the Hong Kong Stock Exchange through Shanghai-Hong Kong Stock Connect and Shenzhen-Hong Kong Stock Connect, the tax payable shall be the same as that for individual investors. The companies of such H shares will not withhold and pay the income tax of dividends for domestic enterprise investors and those domestic enterprise investors shall report and pay the relevant tax themselves.

The record date and the date of appropriation of cash dividends and other arrangements for the investors of Southbound Trading will be the same as those for the holders of H Shares of the Company.

As the Company is yet to confirm the date for convening the 2024 Annual General Meeting, the record date(s) and the period(s) for closure of register for determining the eligibility to attend and vote at the 2024 Annual General Meeting, as well as the entitlement to the final dividend, the Company will announce such details in the notice of the 2024 Annual General Meeting once confirmed. The notice is expected to be issued to shareholders in late April or May 2025.

PRINCIPAL BUSINESS

The domestic power plants of the Company and its subsidiaries are widely distributed across 26 provinces, autonomous regions and municipalities. The Company also has a wholly-owned operating power company in Singapore and invested in a power generation company in Pakistan. The core business of the Company is to develop, construct and operate coal-fired and gas-fired power plants, new energy generation projects and supporting ports, shipping, incremental distribution grid and other facilities throughout China and abroad by making use of modern technology and equipment and financial resources available domestically and internationally to provide electricity, heat and integrated energy services to the community.

SUBSIDIARIES AND ASSOCIATES

Please refer to Notes 9 and 8 to the financial statements prepared under the IFRS accounting standards for details of the Company's subsidiaries and associates.

BONDS

During the year, the Company and its subsidiaries successfully issued bonds with a total principal amount of RMB61.6 billion in meeting its operational needs. Please refer to Notes 25 and 29 to the financial statements prepared under the IFRS accounting standards for details.

BANK LOANS AND OTHER BORROWINGS

Please refer to Notes 24 and 30 to the financial statements prepared under the IFRS accounting standards for details of bank loans and other borrowings of the Company and its subsidiaries as at 31 December 2024.

REPORT OF THE BOARD OF DIRECTORS

CAPITALIZED INTERESTS

Please refer to Note 6 to the financial statements prepared under the IFRS accounting standards for details of the capitalized interests of the Company and its subsidiaries as at 31 December 2024.

PROPERTIES, PLANTS AND EQUIPMENT

Please refer to Note 7 to the financial statements prepared under the IFRS accounting standards for details of properties, plants and equipment of the Company and its subsidiaries as at 31 December 2024.

RESERVES

Please refer to the consolidated statement of changes in equity on pages 127 to 128 of the financial statements prepared under the IFRS accounting standards for details of statutory reserves of the Company and its subsidiaries as at 31 December 2024.

PRE-EMPTIVE RIGHTS

According to the articles of association of the Company and the laws of the PRC, there are no provisions for pre-emptive rights requiring the Company to offer new shares to the existing shareholders of the Company in proportion to their shareholdings.

LARGEST SUPPLIERS AND CUSTOMERS

The five largest suppliers of the Company and its subsidiaries for 2024 were China Huaneng Group Fuel Co., Ltd. (Huaneng Group, the ultimate controlling shareholder of the Company, holds about 73% of its equity), Huaneng Supply Chain Platform Technology Co., Ltd. (Huaneng Group holds about 35% of its equity), Shandong Energy Group Company Limited, China Coal Energy Company Limited and Huaneng Coal Industry Co., Ltd. (Huaneng Group holds 100% of its equity), respectively. The total purchase from them amounted to approximately RMB77.826 billion, representing approximately 33.73% of the total purchase of the year. The largest supplier was China Huaneng Group Fuel Co., Ltd., the purchase from which amounted to RMB27.947 billion, representing approximately 12.11% of the total purchase of the year.

As a domestic power producer, the Company sells the electricity generated by its power plants mainly through regional grid companies. The five largest customers of the Company and its subsidiaries for 2024 were State Grid Shandong Electric Power Company, State Grid Jiangsu Electric Power Company, State Grid Zhejiang Electric Power Company, State Grid Jiangxi Electric Power Company and China Southern Power Grid Guangdong Power Grid Co., Ltd. The total amount of sales of power to those five largest customers was approximately RMB96.957 billion, representing approximately 39.49% of the total sales of power for the year. The largest customer was State Grid Shandong Electric Power Company, and the amount of sale to it was RMB34.219 billion, representing approximately 13.94% of the total sales of power for the year.

Save as disclosed above, none of the directors (the "Director(s)"), supervisors (the "Supervisor(s)") and their respective close associates (as defined in the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (the "Listing Rules")) or any shareholders (holding 5% or more of the issued shares of the Company (excluding the treasury shares) to the best knowledge of the Board) had any interest in the five largest suppliers and customers of the Company mentioned above in 2024.

CONTINUING CONNECTED TRANSACTIONS AND CONNECTED TRANSACTIONS

The following are the continuing connected transactions and connected transactions of the Company in 2024 disclosed under the requirements of the Hong Kong Listing Rules:

1. Continuing Connected Transactions with Huaneng Group, Huaneng Finance and Tiancheng Leasing

The major continuing connected transactions of the Company are those transactions conducted between the Company and its subsidiaries and certain subsidiaries and/or associates of Huaneng Group. Huaneng Group holds a 75% direct interest and a 25% indirect interest in HIPDC. HIPDC, as the immediate controlling shareholder of the Company, holds 32.28% equity interest of the Company. In addition, Huaneng Group holds a 9.91% direct equity interest in the Company, a 3.01% indirect equity interest in the Company through its whollyowned subsidiary, China Hua Neng Group Hong Kong Limited ("Huaneng HK"), a 0.84% indirect equity interest in the Company through China Huaneng Group Treasury Management (Hong Kong) Limited ("Huaneng Treasury"), an indirect wholly-owned subsidiary of Huaneng Group, a 0.20% indirect interest in the Company through its concerted party, Huaneng Structural Adjustment No.1 Securities Investment Private Fund. Huaneng Group and the Company holds approximately 52% and 20% equity interests respectively in Huaneng Finance. Huaneng Tiancheng Financial Leasing Co., Ltd. ("Tiancheng Leasing") is a majority-owned subsidiary of Huaneng Group which in aggregate holds a 80% equity interest, whilst the remaining 20% equity interest is held by the Company. Therefore, Huaneng Group, Huaneng Finance and Tiancheng Leasing are connected persons of the Company and transactions between the Company and the subsidiaries and/or associates of Huaneng Group constitute connected transactions of the Company under the Hong Kong Listing Rules. The purposes of the Company to enter into such continuing connected transactions with those connected persons were to meet the operational needs of the Company and to get the most favourable terms and conditions from the market from the Company's perspective. The relevant information regarding the continuing connected transactions are summarized as follows:

(i) Huaneng Group Framework Agreement was entered into between the Company and Huaneng Group on 10 October 2023 for a term commencing on 1 January 2024 and expiring on 31 December 2024. Pursuant to the Huaneng Group Framework Agreement, the Company conducted the following transactions with Huaneng Group and its subsidiaries and associates on an ongoing basis:

REPORT OF THE BOARD OF DIRECTORS

- Due to operational needs, the Company and its subsidiaries have to purchase ancillary equipment and products which include mainly the raw materials and ancillary equipment and other equipment and products relevant to the production operation for the infrastructure construction works for power plants. Pursuant to the Huaneng Group Framework Agreement, the terms and the prices with respect to the purchase of ancillary equipment and parts by the Company and its subsidiaries from Huaneng Group and its subsidiaries and associates are negotiated at arm's length terms, determined based on the prevailing market conditions; In any event at the terms and prices no less favorable than those offered to the Company and its subsidiaries by independent third parties for the same or similar type of ancillary equipment and parts. In addition, the payment of such purchases will be settled in cash upon delivery, or in accordance with the payment terms agreed by the relevant parties in the contracts to be entered into pursuant to such framework agreement.

  For the year ended 31 December 2024, the estimated transaction amount arising from the procurement of ancillary equipment and parts by the Company and subsidiaries from Huaneng Group and its subsidiaries and associates pursuant to the Huaneng Group Framework Agreement is not expected to exceed RMB2.1 billion. For the year ended 31 December 2024, the actual transaction amount was RMB948 million.

- The Company's main fuel for power generation is coal. Pursuant to the Huaneng Group Framework Agreement, the Company and its subsidiaries will purchase fuel and coal transportation services from Huaneng Group and its subsidiaries and associates at prices and charges calculated by reference to RMB/ton and the actual weight of carriage, negotiated at arm's length terms taking into account the prevailing market conditions, and in any event the prices and the terms of the purchases of fuel and the transportation services shall be no less favourable than those offered by independent third parties to the Company and its subsidiaries for the same or similar type of fuel supply or transportation services.

  The maximum amount of transactions expected to be incurred by the Company and its subsidiaries for the purchase of fuel and transportation capacity from Huaneng Group and its subsidiaries and associates under the Huaneng Group Framework Agreement in 2024 is RMB115 billion. For the year ended 31 December 2024, the actual transaction amount was RMB64.851 billion.

- For operational needs, the Company and its subsidiaries have to lease facilities, land and office spaces (mainly including power transmission and transformation assets, vessels, land and office spaces for power plants, etc.) from Huaneng Group and its subsidiaries and associates. Pursuant to the Huaneng Group Framework Agreement, the terms and the prices with respect to the leasing of facilities, land and office spaces to the Company and its subsidiaries by Huaneng Group and its subsidiaries and associates are negotiated at arm's length terms, taking into account the then prevailing market conditions; but in any event at the leasing terms and prices no less favourable than those offered to the Company and its subsidiaries by independent third parties for the same or similar types of leased facilities, land and office spaces. In addition, the payment will be settled in cash, or in accordance with the payment terms agreed by the relevant parties in the contracts to be entered into in future pursuant to the framework agreement.

Pursuant to the Huaneng Group Framework Agreement, the transaction amount with respect to the leasing of facilities, land and office spaces by the Company and its subsidiaries from Huaneng Group and its subsidiaries and associates in 2024 is estimated not to exceed RMB300 million. For the year ended 31 December 2024, the actual transaction amount was RMB223 million.

- Accepting the technical services, engineering contracting services and other services between the Company and its subsidiaries and Huaneng Group and its subsidiaries and associates mainly includes the provision of fuel management service relevant to power plants maintenance services for power plants' monitoring systems, real-time consolidation of project data, trial run of generating units, supervision of manufacture of facilities, contracting of construction works in progress and insurance services by Huaneng Group and its subsidiaries and associates to the Company and its subsidiaries.

  Pursuant to the Huaneng Group Framework Agreement, the terms and the prices of transactions with respect to accepting technical services, engineering contracting services and other services by the Company and its subsidiaries from Huaneng Group and its subsidiaries and associates are negotiated at arm's length terms based on prevailing market conditions. In any event at the terms and prices no less favourable than those offered to the Company and its subsidiaries by independent third parties for the same or similar types of technical services, engineering contracting services and other services. In addition, the payment of consideration will be settled in cash upon completion of services, or in accordance with the payment terms agreed by the relevant parties in the contracts to be entered into pursuant to the framework agreement.

  Pursuant to the Huaneng Group Framework Agreement the transaction amount with respect to accepting the technical services, engineering contracting services and other services by the Company and its subsidiaries from Huaneng Group and its subsidiaries and associates in 2024 is estimated not to exceed RMB8.4 billion. For the year ended 31 December 2024, the actual transaction amount was RMB2.754 billion.

- The provision of entrusted sale of electricity and related services from Huaneng Group and its subsidiaries and associates to the Company and its subsidiaries involves mainly Huaneng Group and its subsidiaries and associates using the power generation quota of the Company and its subsidiaries for substituted power generation. Pursuant to the Huaneng Group Framework Agreement, the terms and prices with respect to the provision of aforesaid entrusted sale and related services from Huaneng Group and its subsidiaries and associates to the Company and its subsidiaries are to be negotiated at arm's length terms, taking into account the then prevailing market conditions, but in any event at the terms and prices no less favourable than those offered to the Company and its subsidiaries by an independent third party for the same or similar type of services.

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Pursuant to the Huaneng Group Framework Agreement, the cap of transaction amount with respect to such entrusted sale and related services between the Company and its subsidiaries and Huaneng Group and its subsidiaries and associates for 2024 is estimated to be RMB100 million. For the year ended 31 December 2024, the actual transaction amount was nil.

- The acceptance of the provision of entrusted sale and related services from Huaneng Group and its subsidiaries and associates by the Company and its subsidiaries involves mainly the use the power generation quota of Huaneng Group and its subsidiaries and associates for substituted power generation. Pursuant to the Huaneng Group Framework Agreement, the terms and prices with respect to the provision of aforesaid entrusted sale and related services from Huaneng Group and its subsidiaries and associates to the Company and its subsidiaries are to be negotiated at arm's length terms, taking into account the then prevailing market conditions, but in any event at the terms and prices no less favourable than those offered by the Company and its subsidiaries to an independent third party for the same or similar type of services.

  Pursuant to the Huaneng Group Framework Agreement, the cap of transaction amount with respect to the acceptance of the entrustment of the sale and related services between the Company and its subsidiaries and Huaneng Group and its subsidiaries and associates for 2024 is estimated to be RMB100 million. For the year ended 31 December 2024, the actual transaction amount was nil.

- To be more cost-efficient in management, the Company's subsidiary(ies) will sell products and related services (mainly coal, provision of transportation capacity and port services and other services) to Huaneng Group and its subsidiaries and associates. The prices and charges of coal will be calculated by reference to RMB/ton and the actual weight of carriage, with arm's length terms taking into account the then market conditions, and in any event the terms of the purchases of coal and other related products shall be no less favourable than those offered to independent third parties by the Company for the same or similar type of coal supply and other related products.

  Pursuant to the Huaneng Group Framework Agreement, the cap of transaction amount with respect to the sale of products and related services between the Company and Huaneng Group and its subsidiaries and associates for 2024 is estimated to be RMB1 billion. For the year ended 31 December 2024, the actual transaction amount was RMB731 million.

- The purchase of thermal products and related services by the Company and its subsidiaries from Huaneng Group and its subsidiaries and associates includes the purchase of industrial steam, hot water and other thermal products produced by power plants and heating enterprises, and the entrustment to Huaneng Group and its subsidiaries and associates to sell industrial steam, hot water and other thermal products, and pay the corresponding service fees to counterparties.

Pursuant to the Huaneng Group Framework Agreement, the cap of transaction amount with respect to the purchase of thermal products and related services by the Company and its subsidiaries from Huaneng Group and its subsidiaries and associates in 2024 is estimated to be RMB200 million. For the year ended 31 December 2024, the actual transaction amount was RMB129 million.

- The Company and its subsidiaries sell thermal products and related services to Huaneng Group and its subsidiaries and associates, which mainly include the sales of industrial steam, hot water and other thermal products by the Company's power plants and heating enterprises, and the acceptance of the entrustment by Huaneng Group and its subsidiaries and associates to sell industrial steam, hot water and other thermal products on their behalf, and charge counterparties for the service fees.

  Pursuant to the Huaneng Group Framework Agreement, the cap of transaction amount with respect to the sale of thermal products and related services by the Company and its subsidiaries to Huaneng Group and its subsidiaries and associates in 2024 is estimated to be RMB300 million. For the year ended 31 December 2024, the actual transaction amount was RMB53 million.

- The purchase of carbon emission reduction resources and related services by the Company and its subsidiaries includes carbon allowances, China Certified Emission Reduction (CCER), Green Certificates and other products, as well as carbon emission reduction related services from Huaneng Group and its subsidiaries and associates.

  Pursuant to the Huaneng Group Framework Agreement, the cap of transaction amount with respect to the purchase of carbon emission reduction resources and related services by the Company and its subsidiaries from Huaneng Group and its subsidiaries and associates in 2024 is estimated to be RMB1.1 billion. For the year ended 31 December 2024, the actual transaction amount was RMB75 million.

- The sale of carbon emission reduction resources and related services by the Company and its subsidiaries includes the sale of carbon allowances, China Certified Emission Reduction (CCER), Green Certificates and other products, as well as carbon emission reduction related services to Huaneng Group and its subsidiaries and associates.

REPORT OF THE BOARD OF DIRECTORS

Pursuant to the Huaneng Group Framework Agreement, the cap of transaction amount with respect to the sale of carbon emission reduction resources and related services by the Company and its subsidiaries to Huaneng Group and its subsidiaries and associates in 2024 is estimated to be RMB800 million. For the year ended 31 December 2024, the actual transaction amount was RMB12 million.

- Pursuant to the Huaneng Group Framework Agreement, (i) Borrowing of Trust Loans refers to the direct borrowing of trust loans by the Company and its subsidiaries from Huaneng Group and its subsidiaries and associates without the involvement of any agent bank as an intermediary (Borrowing of Trust Loans), and (ii) Acceptance of Loans refers to the borrowing of loans by the Company and its subsidiaries from Huaneng Group and its subsidiaries and associates with a trustee or agent bank acting as an intermediary (Acceptance of Loans). Given that the trust loans and loans are obtained by the Company and its subsidiaries from or through Huaneng Group and its subsidiaries and associates on normal commercial terms which are comparable to or more favourable than those available from independent third parties for similar services in the PRC and that no security is granted over the assets of the Company and its subsidiaries in respect of such services.

  Pursuant to the Huaneng Group Framework Agreement, the cap of the amount of interest arising from the transactions (i.e. interest arising from borrowing of the relevant trust loans) of the trust loans borrowed for 2024 is expected to be RMB800 million and the transaction amount (i.e. the amount of the loans accepted) of the loans received for 2024 is expected to be RMB20 billion or its equivalent in foreign currency (maximum daily balance of the loan). For the year ended 31 December 2024, the actual interest incurred on the trust loans borrowed was RMB419 million and the actual maximum daily loan balance incurred on the loans received was RMB2,783 million.

(ii) The Company entered into the Huaneng Finance Framework Agreement (the "Huaneng Finance Framework Agreement") for the period from 2022 to 2024 with Huaneng Finance on 26 October 2021 for the purpose of governing the conduct of the continuing connected transactions between the Company and Huaneng Finance from 1 January 2022 to 31 December 2024. Due to the energy supply and clean energy project construction, Huaneng Finance can provide preferential loan support. Taking into account the Company's business development needs, the Company proposes to adjust by increasing the loan advancement cap with Huaneng Finance. On 25 October 2022, the Company entered into the Supplemental Agreement to Huaneng Finance Framework Agreement with Huaneng Finance. During the period from 1 January 2023 to 31 December 2024, the maximum loan outstanding balance (on daily basis) of the Company and its subsidiaries from Huaneng Finance shall be increased from RMB23 billion (or its equivalent in foreign currency) to RMB33 billion (or its equivalent in foreign currency).

Pursuant to the Huaneng Finance Framework Agreement, The Company from time to time places deposits with Huaneng Finance at rates which are no less favourable than the rates available from independent third parties for provision of similar services in the PRC.

Pursuant to the original Huaneng Finance Framework Agreement, during the period from 1 January 2024 to 31 December 2024, the outstanding balances of the deposits to be placed with Huaneng Finance on a daily basis shall not exceed RMB20 billion (or its equivalent in foreign currency). For the year ended 31 December 2024, the maximum amount of deposits placed by the Company and subsidiaries with Huaneng Finance was RMB19.999 billion.

Pursuant to the Huaneng Finance Framework Agreement, the Company and its subsidiaries will also use the note discounting services and loan advancement services provided by Huaneng Finance. Huaneng Finance shall provide the note discounting and loan advancement services on normal commercial terms and on terms which are no less favourable than those available from independent third parties. The interest rates on loan services to be offered by Huaneng Finance to the Company and its subsidiaries will primarily be based on the benchmark interest down within the range from 5% to 10% basing on the rate by PBOC for the contemporary period, whilst the prices of the note discounting will be no less favourable than those offered by other major domestic commercial banks.

Pursuant to the Huaneng Finance Framework Agreement, the annual cap of the total transaction amount relating to the note discounting services for the year of 2024 is RMB4.0 billion and the actual cumulative note discounting amounted to RMB201 million.

Pursuant to the Supplemental Agreement to Huaneng Finance Framework Agreement, the maximum loan outstanding balance (on daily basis) of the Company and its subsidiaries from Huaneng Finance for the year of 2024 is RMB33 billion (or its equivalent in foreign currency), and the actual maximum daily loan balance was RMB21.886 billion.

(iii) On 25 October 2022, the Company entered into the Tiancheng Leasing Framework Agreement with Tiancheng Leasing for the purpose of governing the conduct of continuing connected transactions between the Company and Tiancheng Leasing from 2023 to 2025. Tiancheng Leasing Framework Agreement shall be effective from 1 January 2023 to 31 December 2025.

Under the Tiancheng Leasing Framework Agreement, Tiancheng Leasing mainly provides financial leasing services to the Company and its subsidiaries, including the direct lease and sale-and-leaseback. The amount of the lease rent will be determined by reference to the total purchase price of the relevant equipment and the interest agreed by the parties. The interest rate shall be based upon the term loan benchmark rate published by the PBOC from time to time and negotiated and agreed by the parties on arm's length basis taking into account the market conditions, and shall be no less favourable than those offered to the Company by domestic independent third parties for the provision of similar services. Handling fee (if any) may be charged by Tiancheng Leasing from the Company and its subsidiaries at the time of conclusion of the finance leases under the Tiancheng Leasing Framework Agreement on terms no less favourable than those offered to the

REPORT OF THE BOARD OF DIRECTORS

Company and its subsidiaries by independent third parties and at such rate as fixed by reference to the charge rates of other major financial institutions in the PRC for finance leases of assets of the same or similar type or the applicable rate (if any) published by the PBOC from time to time in relation to such services and as set forth in the relevant written agreements. The lease interest rate will be decided at the commencement of each finance lease executed pursuant to the Tiancheng Leasing Framework Agreement. In the event the PBOC adjusts the annual benchmark rate for RMB-denominated term loans during the term of relevant finance lease, the lease interest rate will be adjusted accordingly. The transaction amounts shall be paid at the end of each quarter or year or at such other intervals as agreed by the parties.

Under the Tiancheng Leasing Framework Agreement, with respect to the transaction amount between the Company and its subsidiaries and Tiancheng Leasing for the period from 2023 to 2025, it is estimated that the Lease Principal (the maximum daily balances of the Lease Principal each year) will be RMB10 billion and the Lease Interest will be capped at RMB490 million. However, for purposes of the Hong Kong Listing Rules, the Direct Lease(s) involve(s) "acquisition" while the Sales and Leaseback constitute(s) "disposal". (i) the transaction amount contemplated under the Direct Leases category of the Tiancheng Leasing Framework Agreement between the Company and its subsidiaries and Tiancheng Leasing for the period from 2023 to 2025 at RMB8 billion each year; and (ii) the transaction amount contemplated under the Sales and Leaseback category of the Tiancheng Leasing Framework Agreement between the Company and its subsidiaries and Tiancheng Leasing for the period from 2023 to 2025 at RMB2 billion each year.

During the year ended 31 December 2024, the actual amount of the maximum daily Lease Principal of the Company and subsidiaries with Tiancheng Leasing under the Direct Leases was RMB1,565 million and the actual amount of the lease interest was RMB23 million; and the maximum lease principal of the Company and subsidiaries with Tiancheng Leasing under the Sales and Leaseback was RMB300 million and the lease interest was RMB2 million.

2. Continuing Connected Transactions Under the Letter of Support

(i) The Group securitised certain of its infrastructure assets (that is, Laiwu Project, an electricity power plant located in Laiwu, Shandong Province, the PRC) by way of participating in the issuance of the asset-backed securities ("ABS") on the Shanghai Stock Exchange, the expected maturity of the ABS is 23 years, the size of which is expected to be approximately RMB7,694 million. The following material steps (in chronological order) shall be effected under the ABS scheme: (i) a partnership shall be established in the PRC by: Shandong Silk Road International Electricity Co., Ltd. ("Silk Road International"), Huadian Jintai (Beijing) Investment Fund Management Co., Ltd. ("Huadian Jintai") and Huaneng Shandong Power Generation Co., Ltd. ("Shandong Company", together with Silk Road International and Huadian Jintai, collectively referred to as "Partners"); (ii) the ABS shall be issued on the Shanghai Stock Exchange for subscription by eligible investors. Upon the ABS issuance, Huadian Jintai shall transfer the entirety of its interest in the Partnership to the ABS, and the entirety of the proceeds of the ABS issuance shall be used as capital contribution to the Partnership. Silk Road International and Shandong Company shall also make full paid-up capital contributions to the Partnership; (iii) after all Partners have duly made capital contributions to the partnership, the partnership shall acquire from Shandong Company the equity interest in Huaneng Laiwu Power Generation Co., Ltd. ("Laiwu Project Company") held by it and (iv) after acquiring interest in Laiwu Project Company, the partnership shall extend the laiwu shareholder loan to Laiwu Project Company, which shall replace Laiwu Project Company's existing indebtedness and shall replenish its working capital. To secure the repayment of the laiwu shareholder loan, Laiwu Project Company shall pledge, all operating revenue from Laiwu Project in favour of the partnership. In addition: (i) Shandong Company, the designated operation support institution for Laiwu Project Company under the ABS scheme, shall provide the operation support and bear the cash interchange obligation; and (ii) the Company shall execute the Letter of Support in favour of Shandong Company, pursuant to which the Company shall provide the liquidity support to Shandong Company to cover the operation support and cash interchange obligation in the event where Shandong Company fails to do so.

Accordingly, on 10 October 2023, the Company issued a letter of support to Shandong Company, pursuant to which, the Company agrees to provide liquidity support in favour of Shandong Company in respect of Shandong Company's obligation: (i) to provide the operation support and the performance support; and (ii) to perform the cash interchange obligation, in the event where Shandong Company fails to do so. The proposed term shall be 23 years from 2023, that is, the term of the liquidity support provided by the Company shall expire in 2046. The proposed annual cap shall be RMB9,529 million each year (from 2023 until 2046, being the expiry year of the term of the Letter of Support), which is the sum of the estimated amount of RMB5,916 million for the performance support; and the estimated amount of RMB3,613 million for the cash interchange obligation support.

As disclosed above, Huaneng Group is the controlling shareholder of the Company. Shandong Company is held as to 20% by Huaneng Group. Hence, Shandong Company is an associate of Huaneng Group and a connected person of the Company pursuant to the Hong Kong Listing Rules. Therefore, the transactions contemplated under the Letter of Support constitute continuing connected transactions of the Company under Chapter 14A of the Hong Kong Listing Rules.

By participating in the ABS, the Company will be able to effectively revitalise its infrastructure assets, enhance its operation and management, and promote the transformation and development of business and operation of the Group. Further, the ABS represents an alternative financing method for the Company, which will diversify the fundraising methods and platforms of the Group and reduce its reliance on traditional debt and equity financing channels.

It will also enhance the Company's rolling investment capability and sustainable operation, which will be beneficial to the Group's long-term performance. The Company's participation in the ABS will bring in funding, improve the Company's balance sheet and enhance its investment capacity. The Liquidity Support is conducive for the ABS to obtain the recognition of eligible investors as well as to reduce the cost of issuance.

REPORT OF THE BOARD OF DIRECTORS

Please refer to the Company's announcement dated 10 October 2023 for further details on the major terms of the issuance of the ABS, the Letter of Support and the transaction contemplated thereunder.

(ii) On 18 July 2024, the Company executed the Letter of Support in favour of Shandong Company, pursuant to which the Company shall provide the Liquidity Support to Shandong Company to cover the Operation Support and Cash Interchange Obligation in the event where Shandong Company fails to do so, including (i) to provide the Operation Support and the Performance Support under the Operation Support Agreement; and (ii) to perform the Cash Interchange Obligation under the Partnership Agreement, in the event where Shandong Company fails to do so. The proposed term shall be 25 years from 2024, that is, the term of the Liquidity Support provided by the Company shall expire in 2049. The proposed annual cap for the liquidity support shall be RMB4,666 million each year (from 2024 until 2049), comprising an estimated amount of RMB3,309 million for the Performance Support and an estimated amount of RMB1,357 million for the Cash Interchange Obligation.

The Group securitised certain of its infrastructure assets (that is, Yantai Project, an electricity power plant located in Yantai, Shandong Province, the PRC) by way of participating in the issuance of the ABS on the Shanghai Stock Exchange, the maturity period of the ABS is expected to be 25 years, the size of which is expected to be approximately RMB3,796 million. Under the ABS scheme, it is contemplated that the following material steps (in chronological order) shall be effected:(i) a partnership shall be established in the PRC by: Shandong Silk Road International Electricity Co., Ltd. ("Silk Road International"), China Kangfu International Leasing Co., Ltd. ("Kangfu Leasing") and Huaneng Shandong Power Generation Co., Ltd. ("Shandong Company", together with Silk Road International and Kangfu Leasing, collectively referred to as "Partners"); (ii) The ABS shall be issued on the Shanghai Stock Exchange for subscription by eligible investors. Upon the ABS issuance, Kangfu Leasing, Silk Road International and Shandong Company shall make capital contributions to the Partnership; (iii) after all partners have duly made full paid-up capital contributions to the Partnership, the Partnership shall acquire from Shandong Company 99.99% equity interest in Yantai Project Company held by it; and (iv) after acquiring interest in Yantai Project Company, the Partnership shall extend the Yantai Shareholder Loan to Yantai Project Company, which shall replace Yantai Project Company's existing indebtedness. To secure the repayment of the Yantai Shareholder Loan, Yantai Project Company shall pledge, among others, all operating revenue from Yantai Project in favour of the Partnership. In addition: (i) Shandong Company, the designated operation support institution for Yantai Project Company under the ABS scheme, shall provide the Operation Support and bear the Cash Interchange Obligation; and (ii) the Company shall execute the Letter of Support in favour of Shandong Company, pursuant to which the Company shall provide the Liquidity Support to Shandong Company to cover the Operation Support and Cash Interchange Obligation in the event where Shandong Company fails to do so.

As disclosed above, Huaneng Group is the ultimate controlling shareholder of the Company. Shandong Company is held as to 20% by Huaneng Group. Hence, Shandong Company is an connected subsidiary and a connected person of the Company pursuant to the Hong Kong Listing Rules. Therefore, the transactions contemplated under the Letter of Support constitute continuing connected transactions of the Company under Chapter 14A of the Hong Kong Listing Rules.

By participating in the ABS, the Company will be able to effectively revitalise its infrastructure assets, enhance its operation and management, and promote the transformation and development of business and operation of the Group. Further, the ABS represents an alternative financing method for the Company, which will diversify the fundraising methods and platforms of the Group and reduce its reliance on traditional debt financing channels. It will also enhance the Company's rolling investment capability and sustainable operation, which will be beneficial to the Group's long-term performance. The Company's participation in the ABS will bring in funding, improve the Company's balance sheet and enhance its investment capacity. The Liquidity Support is conducive for the ABS to obtain the recognition of eligible investors as well as to reduce the cost of issuance.

Please refer to the Company's announcement dated 18 July 2024 for further details on the major terms of the issuance of the ABS, the Letter of Support and the transaction contemplated thereunder.

3. Provision of renewable entrusted loans to connected subsidiaries

On 2 November 2022, the Company signed a framework agreement with Shandong Company and Chaohu Power respectively, stipulating that the Company will provide a renewable entrusted loan of not more than RMB12 billion to Shandong Company, and a renewable entrusted loan of not more than RMB1.2 billion to Chaohu Power. The aforesaid loans have no fixed term, the specific terms of which are subject to the renewable entrusted loan agreements to be actually signed. The extended loan term is one year as a cycle, and the initial loan term shall start from the date of advancement. The purpose of the loan is to guarantee the supply of thermal power enterprises. The loan interest rate under the agreement is determined by the Company, and the fixed interest rate is adopted. The annual interest rate is the total amount of upstream fundraising costs and related taxes, etc., and the actual signed renewable entrusted loan interest rate shall prevail. As disclosed above, Shandong Company is a connected subsidiary of the Company. Chaohu Power is a controlled subsidiary of the Company, in which the Company holds 60% equity interest, Huaneng Group's wholly-owned subsidiary holds 10% of the equity interest, and Huaihe Energy Power Group Co., Ltd. holds the remaining 30% equity interest. Chaohu Power is a connected subsidiary of the Company. Hence, the provision of renewable entrusted loans to Shandong Company and Chaohu Power constituted continuing connected transactions for the Company.

For the year ended 31 December 2024, the amount of renewable entrusted loans provided by the Company to Shandong Company amounted to RMB11,750 million and the amount of entrusted loans provided by the Company to Chaohu Power amounted to RMB1,000 million.

REPORT OF THE BOARD OF DIRECTORS

4. Continuing Connected Transactions with Temasek and its subsidiaries and associates

Upon the completion of the acquisition of SinoSing Power Pte. Ltd. by the Company, TPGS Green Energy Pte. Ltd. became an indirect non-wholly owned subsidiary of the Company, of which 75% is owned by Tuas Power Ltd., an indirect wholly-owned subsidiary of the Company, and the remaining 25% is owned by Gas Supply Pte. Ltd., which is a wholly-owned subsidiary of Temasek Holdings (Private) Limited ("Temasek"). Temasek therefore became a substantial shareholder of a subsidiary of the Company and a connected person of the Company, and the ongoing transactions between certain subsidiaries of the Company and the associates of Temasek ("Continuing Connected Transactions with Associates of Temasek") became continuing connected transactions of the Company under the Hong Kong Listing Rules.

The Company considers that Temasek meets the criteria for a passive investor under Rule 14A.100 of the Hong Kong Listing Rules. As such, any connected transactions or continuing connected transactions of a revenue nature in the ordinary and usual course of our business and on normal commercial terms with an associate of Temasek, pursuant to Rule 14A.99 of the Hong Kong Listing Rules, will be exempt from reporting, annual review, announcement and independent shareholders' approval requirement under the Hong Kong Listing Rules. This exemption will be applicable to, amongst other things, the types of Continuing Connected Transactions with Associates of Temasek.

If the exemption is no longer applicable in relation to the Continuing Connected Transactions with Associates of Temasek, the Company will comply with the applicable reporting, annual review, announcement and independent shareholders' approval requirements.

CONNECTED TRANSACTIONS:

1. Formation of a Joint Venture

On 29 October 2024, the Company entered into the Joint Venture Agreement with Huaneng Lancang River Hydropower Inc. ("Huaneng Hydropower"), pursuant to which, the Company and Huaneng Hydropower will jointly fund the establishment of Huaneng Yuwang Phase II Energy Co., Ltd. ("Yuwang Company"). The Company contributed RMB1,509.6 million and Huaneng Hydropower contributed RMB1,450.4 million. After the completion of the Transaction, the Company holds 51% of the equity interests of Yuwang Company, while Huaneng Hydropower holds 49% of the equity interests of Yuwang Company. The joint development of Yuwang Company's integrated coal power and new energy co-generation projects will significantly enhance the reliability and stability of new energy utilization. This initiative will also support largescale wind and photovoltaic power development, contributing to the optimization of the Company's power structure in Yunnan, boosting multi-energy complementary efficiency, and accelerating the establishment of a cohesive coal power and new energy framework. Ultimately, it will maximize the Company's benefits and further its long-term growth in Yunnan. As such, the transaction is designed to fulfill the national energy supply requirements and will help the Company secure resources for new energy projects and facilitate the joint operation of the Company's thermal power and new energy sectors, which will be conducive to the sustainable development of the Company. As disclosed above, Huaneng Group is a connected person of the Company. Huaneng Hydropower is a subsidiary of Huaneng Group. According to the Hong Kong Listing Rules, Huaneng Hydropower is connected person/associate of the Company, the Transaction constitutes a connected transaction of the Company. Please refer to the announcement of the Company dated 30 October 2024 and the circular of the Company dated 22 November 2024 for further details on the major terms of the Joint Venture and the transaction contemplated thereunder.

2. Acquisition of 30% Equity Interest in Baxianjiao Company

The Group securitised certain of its infrastructure assets (that is, (i) Baxianjiao Project, an electricity power plant located in Rudong County, Nantong, Jiangsu Province, the PRC; and (ii) Dafeng Project, an electricity power plant located in Yancheng, Jiangsu Province, the PRC) by way of participating in the issuance of the ABS on the Shanghai Stock Exchange. Under the ABS scheme, it is contemplated that the following material steps (in chronological order) shall be effected: (1) Huaneng Nanjing Liuhe Wind Power Co., Ltd. ("Liuhe Wind Power"), China Kangfu International Leasing Co., Ltd. ("Kangfu Leasing") and Huaneng Power International Jiangsu Energy Development Co., Ltd. ("Huaneng Jiangsu", together with Liuhe Wind Power and Kangfu Leasing, collectively referred to as "Partners"); (2) The ABS shall be issued on the Shanghai Stock Exchange for subscription by eligible investors. Upon the ABS issuance, Kangfu Leasing, Liuhe Wind Power and Huaneng Jiangsu shall make capital contributions to the Partnership; (3) after all partners have duly made capital contributions to the Partnership, (i) the Partnership shall acquire from Huaneng Jiangsu and Huaneng HK 69.99% and 30% equity interest in Baxianjiao Company, respectively; and (ii) Baxianjiao Company shall acquire from Huaneng Jiangsu 100% equity interest in Huaneng Yancheng Dafeng New Energy Power Generation Co., Ltd. ("Dafeng Company") held by it.

On 18 July 2024, the Board of Directors considered and approved that the Partnership would agree to purchase 30% equity interest in Huaneng Rudong Baxianjiao Offshore Wind Power Co., Ltd. ("Baxianjiao Company") from China Hua Neng Group Hong Kong Limited ("Huaneng HK") at a total consideration of not higher than RMB582,191,500, pursuant to the Equity Transfer Agreement entered into among Huaneng Power International Jiangsu Energy Development Co., Ltd. ("Huaneng Jiangsu"), Huaneng HK, the Partnership and Baxianjiao Company. At the same time, pursuant to the Equity Transfer Agreement, Huaneng Jiangsu agrees to sell and the Partnership agrees to purchase 69.99% equity interest in Baxianjiao Company, at a consideration of not higher than RMB1,358,252,800.

By participating in the ABS, the Company will be able to effectively revitalise its infrastructure assets, enhance its operation and management, and promote the transformation and development of business and operation of the Group. Further, the ABS represents an alternative financing method for the Company, which will diversify the fundraising methods and platforms of the Group and reduce its reliance on traditional debt financing channels. It will also enhance the Company's rolling investment capability and sustainable operation, which will be beneficial to the Group's long-term performance. The Company's participation in the ABS will bring in funding, improve the Company's balance sheet and enhance its investment capacity.

REPORT OF THE BOARD OF DIRECTORS

As disclosed above, Huaneng Group is the ultimate controlling shareholder of the Company, (i) Huaneng Jiangsu is a direct wholly-owned subsidiary of the Company; (ii) Huaneng HK is a wholly-owned subsidiary of Huaneng Group, which is a controlling shareholder of the Company; (iii) the general partner of the Partnership is Liuhe Wind Power, which is a wholly-owned subsidiary of Huaneng Jiangsu. After the Partnership has been established, its financial results will be consolidated into the Company's financial statements. Hence, Huaneng HK is an associate of Huaneng Group and a connected person of the Company pursuant to the Hong Kong Listing Rules. Therefore, the Acquisition constitutes a connected transaction of the Company under Chapter 14A of the Hong Kong Listing Rules. For the avoidance of doubt, (i) the acquisition of 69.99% equity interest in Baxianjiao Company by the Partnership from Huaneng Jiangsu pursuant to the Equity Transfer Agreement does not constitute a connected transaction of the Company under Chapter 14A of the Hong Kong Listing Rules; and (ii) as the highest applicable percentage ratio under Rule 14.07 of the Hong Kong Listing Rules in respect of the Acquisition, when aggregated with the acquisition of 69.99% equity interest in Baxianjiao Company, is less than 5%, the transactions contemplated under the Equity Transfer Agreement do not constitute a discloseable transaction of the Company under Chapter 14 of the Hong Kong Listing Rules. Please refer to the announcement of the Company dated 18 July 2024 for further details on the major terms of the acquisition of the equity interest in Baxianjiao Company and the transactions contemplated thereunder.

3. Capital Increase in Shidaowan Nuclear

On 28 May 2024, the Company entered into the Capital Increase Agreement with Huaneng Shidaowan Nuclear Power Development Co., Ltd. ("Shidaowan Nuclear"), Huaneng Nuclear Power Development Co., Ltd. ("Huaneng Nuclear"), State Nuclear Power Technology Co., Ltd. ("State Nuclear") and Huaneng International Power Development Corporation (" HIPDC", together with Huaneng Nuclear and State Nuclear are collectively referred to as the "Other SDW Shareholders"), pursuant to which the Company and Other SDW Shareholders will subscribe the additional registered capital of Shidaowan Nuclear by making cash capital contributions pro rata to their existing equity holdings in Shidaowan Nuclear. Based on public information available to the Company, as at the date of the report, State Nuclear and its ultimate beneficial owners are third parties independent of the Company and its connected persons under the Hong Kong Listing Rules. Huaneng Nuclear is a wholly-owned subsidiary of Huaneng Group and Huaneng Nuclear holds 30% equity interest in Shidaowan Nuclear. According to the relevant provisions of the Hong Kong Listing Rules, HIPDC is a connected person of the Company, while each of Huaneng Nuclear and Shidaowan Nuclear is an associate of the connected person of the Company. The transaction under the Capital Increase Agreement constitutes a connected transaction of the Company

The Company and Other SDW Shareholders shall each subscribe for and contribute to the increase in the registered capital of Shidaowan Nuclear as follows:

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Shareholders	Capital contribution (RMB million)	Subscription amount (RMB million)
The Company	209.925	209.925
Huaneng Nuclear	279.9	279.9
State Nuclear	233.25	233.25
HIPDC	209.925	209.925
In Total	933	933

The registered capital and shareholding structure of Shidaowan Nuclear following the completion of the Capital Increase are as follows:

Shareholders	Capital Contribution (RMB million)	Shareholding percentage
The Company	1,404.675	22.50%
Huaneng Nuclear	1,872.9	30%
State Nuclear	1,560.75	25%
HIPDC	1,404.675	22.50%
In Total	6,243	100%

The Capital Increase will expand Shidaowan Nuclear's total capital which is conducive to project financing and ensure the sufficiency of the working capital of the projects. The transaction aligns with the Company's development strategies and targets and facilitates the Company's low-carbon transformation and increases the installed capacity of clean energy. Please refer to the announcement of the Company dated 29 May 2024 for further details on the major terms of the Capital Increase Agreement and the transactions contemplated thereunder.

REPORT OF THE BOARD OF DIRECTORS

In accordance with the requirements of Rule 14A.55 and 14A.71 of the Hong Kong Listing Rules, the Independent Non-executive Directors of the Company confirmed that the continuing connected transactions above to which the Company was a party: (i)had been entered into by the Company and/or any of its subsidiaries in the ordinary and usual course of its business; (ii)had been entered into on normal commercial terms or better; and(iii)had been entered into according to the agreements governing them on terms that are fair and reasonable and in the interests of the shareholders of the Company as a whole. The Company confirms that the execution of the aforementioned continuing connected transactions during the reporting period has been conducted in compliance with the pricing policies applicable to such continuing connected transactions.

Further, the Company has engaged its external auditor to report on the Company's continuing connected transactions in accordance with Hong Kong Standards on Assurance Engagements 3000 (Revised) "*Assurance Engagements Other Than Audits or Reviews of Historical Financial Information*" and with reference to Practice Note 740 "*Auditor's Letter on Continuing Connected Transactions under the Hong Kong Listing Rules*" issued by the Hong Kong Institute of Certified Public Accountants. In accordance with Rule 14A.71 of the Hong Kong Listing Rules, the Board of the Company confirmed that the external auditor of the Company had made a confirmation statement on the issues mentioned in Rule 14A.56 of the Hong Kong Listing Rules. The external auditor has issued an unqualified letter containing their findings and conclusions in respect of the continuing connected transactions set out in items 1, 2 and 3 above.

Several connected transactions as disclosed in Note 36 to the financial statements prepared in accordance with the IFRS accounting standards fall under the definition of "continuing connected transaction" in Chapter 14A of the Hong Kong Listing Rules. The Company has complied with the disclosure requirements regarding connected transactions in accordance with Chapter 14A of the Hong Kong Listing Rules.

BUSINESS COMPETITION WITH CONTROLLING SHAREHOLDER

The ultimate controlling shareholder of the Company, Huaneng Group and its subsidiaries, are also engaged in the power industry in China. To avoid business competition, Huaneng Group and the Company have already entrusted mutually to manage electric power assets in some regions.

To support the business development of the Company, Huaneng Group has committed to avoid business competition during its initial public offerings at domestic and abroad. On 17 September 2010, the Company received an undertaking from Huaneng Group regarding further avoidance of business competition. On the premises of continuing the undertaking previously provided, Huaneng Group further undertook that: (1) it should treat the Company as the only platform for integrating the conventional energy business of Huaneng Group; (2) with respect to the conventional energy business assets of Huaneng Group located in Shandong Province, Huaneng Group undertook that it would take approximately 5 years to improve the profitability of such assets and when the terms become appropriate, it would inject those assets into the Company. The Company had a right of first refusal to acquire from Huaneng Group the newly developed, acquired or invested projects which are engaged in the conventional energy business of Huaneng Group located in Shandong Province; (3) with respect to the non-listed conventional energy business assets of Huaneng Group located in other provincial administrative regions, Huaneng Group undertook that it would take approximately five years, and upon such assets meeting the conditions for listing, to inject such assets into the Company, with a view to supporting the Company's continuous and stable development; and (4) Huaneng Group would continue to perform each of its undertakings to support the development of its listed subsidiaries.

On 28 June 2014, with a view to further clarify the scope of the relevant agreement and in line with the requirements under the "Regulatory Guidelines for Listed Companies No. 4 —Undertakings and Performance by Listed Companies and Listed Companies' De Facto Controllers, Shareholders, Related Parties and Acquirers", and taking into account the actual situation, Huaneng Group further enhanced the aforesaid non-compete undertaking as follows:

1. the Company would be the sole platform for integrating the conventional energy business of Huaneng Group;

2. with respect to the conventional energy business assets of Huaneng Group located in Shandong Province, Huaneng Group undertook that it would, by the end of 2016, inject into the Company such assets of which the profitability should have been improved and meet with the requirements for injecting into a listed company (such as those assets with clean titles, the injection of which should not reduce the earnings per share of Huaneng Power, of no material noncompliance issues, with positive effect on preservation of and value appreciation of state owned assets, and wavier of pre-emptive rights being obtained from other shareholders of the assets), in addition, the Company should have the right of first refusal to acquire from Huaneng Group the newly developed, acquired or invested projects as engaged in the conventional energy business of Huaneng Group located in Shandong Province;

3. with respect to the other non-listed conventional energy business assets of Huaneng Group located in other provincial administrative regions, Huaneng Group undertook that it would, by the end of 2016, inject into the Company such assets of which the profitability should have been improved and meet with the requirements for injecting into a listed company (such as those assets with clear titles, the injection of which should not reduce the earnings per share of Huaneng Power, of no material non-compliance issues, with positive effect on preservation of and value appreciation of state owned assets, and wavier of pre-emptive rights being obtained from other shareholders of the assets), so as to support a sustainable and stable development of the Company;

4. Huaneng Group would continue to perform each of its aforesaid undertakings in order to support the development of its subordinated listed companies.

The undertakings in items (1) and (4) above are long-term commitments and are currently being performed. The undertakings in items (2) and (3) were time-limited and conditional commitments, which have already been fulfilled.

Currently, the Company has 15 Directors, 4 of whom hold positions in Huaneng Group. According to the articles of association of the Company, in case a conflict of interest arises, the relevant Directors shall abstain from voting on the relevant resolutions. Therefore, the Company operates independently of Huaneng Group and conducts its business in its own interests.

PURCHASE, SALE OR REDEMPTION OF SHARES OF THE COMPANY

The Company and its subsidiaries did not sell, purchase or redeem any shares or other listed securities (including sale of treasury shares) of the Company in 2024. As of 31 December 2024 and during the reporting period, the Company did not hold any treasury shares.

REPORT OF THE BOARD OF DIRECTORS

DIRECTORS OF THE COMPANY

The Directors who were in office during the year were as follows:

Name of Director	Position	Date of appointment
Wang Kui	Chairman, executive Director	29 August 2023
Wang Zhijie	Vice Chairman, executive Director	5 December 2023
Huang Lixin	Executive Director, President	5 December 2023
Du Daming	Non-executive Director	5 December 2023
Zhou Yi	Non-executive Director	5 December 2023
Li Lailong	Non-executive Director	5 December 2023
Cao Xin	Non-executive Director	5 December 2023
Li Haifeng	Non-executive Director	22 December 2020
Ding Xuchun	Non-executive Director	5 December 2023
Wang Jianfeng	Non-executive Director	5 December 2023
Xia Qing	Independent non-executive Director	16 June 2020
He Qiang	Independent non-executive Director	5 December 2023
Zhang Liying	Independent non-executive Director	5 December 2023
Zhang Shouwen	Independent non-executive Director	5 December 2023
Dang Ying	Independent non-executive Director	5 December 2023

MODEL CODE FOR SECURITIES TRANSACTIONS BY DIRECTORS AND SUPERVISORS

On 30 June 2021, the Company's Board considered and approved the Amended Management Guidelines Regarding the Holding of the Company's Shares by the Directors, Supervisors and Senior Management of Huaneng Power International, Inc. ("Management Guidelines") The standards set out in these guidelines are not less exacting than those set out in the Model Code for Securities Transactions by Directors of Listed Issuers ("Model Code"), as set out in Appendix C3 to the Listing Rules. Enquiries have been made with all Directors and Supervisors and each has confirmed compliance with both the Management Guidelines and the Model Code throughout 2024.

DIRECTORS', CHIEF EXECUTIVES' AND SUPERVISORS' RIGHT TO PURCHASE SHARES

For the year ended 31 December 2024, none of the Directors, Chief Executive, Supervisors of the Company or their respective associates had any interests in the shares of the Company or any associated corporations (within the meaning of the Securities and Futures Ordinance ("SFO")) which are (a) required to be notified to the Company and the Hong Kong Stock Exchange pursuant to Divisions 7 and 8 of Part XV of the SFO; or (b) required to be recorded in the register kept by the Company pursuant to Section 352 of the SFO; (c) required to be notified to the Company and the Hong Kong Stock Exchange pursuant to the Model Code.

For the year ended 31 December 2024, none of the Directors, Chief Executive, Supervisors, senior management of the Company or their spouses and children under the age of 18 was given the right to acquire any shares, underlying shares or debentures of the Company or any associated corporations (within the meaning of the SFO).

INDEPENDENT DIRECTORS' CONFIRMATION OF INDEPENDENCE

Each of the independent non-executive Directors of the Company, namely Mr. Xia Qing, Mr. He Qiang, Ms. Zhang Liying, Mr. Zhang Shouwen and Ms. Dang Ying has signed a confirmation letter regarding their independence as independent non-executive Directors for 2024 on 25 March 2025. The Company considers them to be independent.

EMOLUMENTS OF DIRECTORS AND SUPERVISORS

Details of the emoluments of Directors and Supervisors of the Company are set out in Note 38 to the financial statements prepared under the IFRS accounting standards.

THE FIVE HIGHEST PAID EMPLOYEES

Details of the five highest paid employees of the Company are set out in Note 37 to the financial statements prepared under the IFRS accounting standards.

PUBLIC FLOAT

Based on the information publicly available for the Company's review and to the best of the knowledge of the Directors, as of the latest practicable date prior to the publication of this report, the Company has maintained the public float as prescribed by the Hong Kong Listing Rules and agreed upon with the Hong Kong Stock Exchange.

STRUCTURE OF SHARE CAPITAL

As at 31 December 2024, the total issued share capital of the Company amounted to 15,698,093,359 shares, of which 10,997,709,919 shares were domestic shares, representing 70.06% of the total issued share capital, and 4,700,383,440 shares were foreign shares, representing 29.94% of the total issued share capital. In respect of foreign shares, China Huaneng Group Co., Ltd. ("Huaneng Group") through its wholly-owned subsidiaries, China Hua Neng Group Hong Kong Limited and China Huaneng Group Treasury Management (Hong Kong) Limited, held 472,000,000 and 131,596,000 shares, respectively, representing 3.01% and 0.84% of the total issued share capital of the Company. In respect of domestic shares, Huaneng International Power Development Corporation ("HIPDC") owned a total of 5,066,662,118 shares, representing 32.28% of the total issued share capital of the Company, while Huaneng Group held 1,555,124,549 shares, representing 9.91% of the total issued share capital of the Company, and through its concerted party, Huaneng Structural Adjustment No.1 Securities Investment Private Fund held 31,994,199 shares, representing 0.20% of the total issued share capital of the Company. Other domestic shareholders held a total of 4,343,929,053 shares, representing 27.67% of the total issued share capital.

REPORT OF THE BOARD OF DIRECTORS

SHAREHOLDINGS OF MAJOR SHAREHOLDERS

The following table sets out the shareholdings of the top ten shareholders of the Company as at 31 December 2024:

Name of shareholder	Number of shares held as of 31 December 2024	Percentage of shareholding
Huaneng International Power Development Corporation	5,066,662,118	32.28%
HKSCC Nominees Limited	4,203,246,330	26.78%
China Huaneng Group Co., Ltd.	1,555,124,549	9.91%
Hebei Construction & Investment Group Co., Ltd.	493,316,146	3.14%
China Hua Neng Group Hong Kong Limited	472,000,000	3.01%
China Securities Finance Corporation Limited	466,953,720	2.97%
Jiangsu Guoxin Investment Group Limited	258,452,600	1.65%
Dalian City Investment Holding Group Co., Ltd.	253,740,000	1.62%
Liaoning Energy Investment (Group) Limited	244,205,000	1.56%
Hong Kong Securities Clearing Limited	171,616,554	1.09%

MATERIAL INTERESTS AND SHORT POSITIONS IN SHARES AND UNDERLYING SHARES OF THE COMPANY

As at 31 December 2024, the interests or short positions of persons who were entitled to exercise or control the exercise of 5% or more of the voting power at any of the Company's general meetings (excluding the Directors, Supervisors and chief executive) in the shares or underlying shares of equity derivatives of the Company as recorded in the register required to be kept under Section 336 of the Securities and Futures Ordinance (Cap. 571 of the laws of Hong Kong) (the "SFO") were as follows:

Name of shareholder	Class of shares	Number of shares held (share)	Capacity	Approximate percentage of shareholding in the Company's total issued share capital	Approximate percentage of shareholding in the Company's total issued domestic shares	Approximate Percentage of shareholding in the Company's total issued H Shares
Huaneng International Power Development Corporation (Note 2)	Domestic shares	5,066,662,118(L)	Beneficial owner	32.28%(L)	46.07%(L)	–
China Huaneng Group Co., Ltd. (Note 3)	Domestic shares	1,555,124,549(L)	Beneficial owner	9.91%(L)	14.14%(L)	–
China Huaneng Group Co., Ltd. (Note 4)	H Shares	603,596,000 (L)	Beneficial owner	3.85%(L)	–	12.84%(L)
Wisdomshire Asset Management Co., Ltd.	H Shares	520,101,000 (L)	Investment manager	3.31%(L)	–	11.07% (L)
Pacific Asset Management Co., Ltd.	H Shares	283,313,241(L)	Investment manager	1.80%(L)	–	6.03% (L)

Notes:

(1) The letter "L" denotes a long position.

(2) As of the Latest Practicable Date, China Huaneng Group Co., Ltd. holds 75% direct interests and 25% indirect interests in Huaneng International Power Development Corporation.

(3) Besides of the 1,555,124,549 domestic shares, Huaneng Group holds 31,994,199 domestic shares through Huaneng Structural Adjustment No.1 Securities Investment Private Fund, Huaneng Group directly and indirectly holds 86.25% interests in Huaneng Structural Adjustment No.1 Securities Investment Private Fund.

(4) China Huaneng Group Co., Ltd. holds 472,000,000 H shares through its wholly-owned subsidiary, China Hua Neng Group Hong Kong Limited, and holds 131,596,000 H shares through its indirect wholly-owned subsidiary, China Huaneng Group Treasury Management (Hong Kong) Limited.

Save as stated above, as at 31 December 2024, in the register required to be kept under Section 336 of SFO, no other persons were recorded to hold any interests or short positions in the shares or underlying shares of the equity derivatives of the Company.

REPORT OF THE BOARD OF DIRECTORS

DIRECTORS' AND SUPERVISORS' RIGHT TO PURCHASE SHARES

The Company has adopted a code with the standard not lower than that of the Model Code for Securities Transactions by Directors of Listed Issuers as set out in Appendix C3 to the Hong Kong Listing Rules. Following enquiries made by the Company, all Directors and Supervisors confirmed that they have complied with the Code throughout 2024.

As at 31 December 2024, none of the directors, chief executive officer or supervisors of the Company had any interest or short position in the shares, underlying shares and/or debentures (as the case may be) of the Company or any of its associate corporations (within the definition of Part XV of the SFO) which was required to be notified to the Company and the Hong Kong Stock Exchange pursuant to Divisions 7 and 8 of Part XV of the SFO (including interest and short position which any such Director, chief executive officers or Supervisor is taken or deemed to have under such provisions of the SFO) or which was required to be recorded in the register required to be kept by the Company pursuant to Section 352 of the SFO or which was otherwise required to be notified to the Company and the Hong Kong Stock Exchange pursuant to the Model Code for Securities Transactions by Directors of Listed Companies as contained in Appendix C3 to the Hong Kong Listing Rules.

DIRECTORS' AND SUPERVISORS' INTEREST IN CONTRACTS AND SERVICE CONTRACTS

Save for the service contracts mentioned below, as at the end of 2024, the Directors and Supervisors of the Company did not have any material interests in any contracts entered into by the Company.

No Director and Supervisor has entered into any service contract which is not terminable by the Company within one year without payment of compensation (other than statutory compensation).

Each Director and Supervisor of the Company have entered into a service contract with the Company for a term of three years, commencing from the signing of the contract.

REMUNERATION POLICY

The Company continuously improves its remuneration and distribution system and has formulated a series of remuneration management policies in alignment with its overall strategy. Employees' salaries are determined based on the principles of "position-based compensation, performance-based remuneration, efficiency first, and emphasis on fairness" and are linked to both the Company's business performance and individual achievements, creating a scientific and effective incentive and restraint mechanism. The remuneration of Directors, Supervisors, and senior management receiving compensation from the Company primarily consists of the following components:

(1) Salaries and allowances

The basic salary, primarily determined through a job position evaluation and factor analysis, with reference to the salary levels of comparable positions in the labor market, accounts for approximately 20% of the total remuneration.

(2) Discretionary bonus

Discretionary bonuses, which are primarily determined based on the Company's operating results and the performance of Directors, Supervisors and senior management, account for approximately 63% of the total remuneration.

(3) Payments on pension, etc.

Contributions to various pension schemes such as endowment insurance, corporate annuity and housing fund established by the Company for the Directors, Supervisors and senior management, account for about 17% of the total remuneration.

According to the resolution passed at a general meeting, the Company paid each independent non-executive Director a subsidy of RMB0.3 million (inclusive of tax) in 2024. Reasonable expenses (including travel and office expenses) incurred by the independent non-executive Directors in attending board meetings and general meetings and in fulfilling their duties under the Company Law and the Company's Articles of Association shall be reimbursed by the Company. Apart from these, the Company does not provide any other benefits to the independent non-executive Directors.

For the year ended 31 December 2024, the remuneration of the members of the senior management of the Group, by band, is set out below:

Range of Remuneration	Person(s)
RMB2.01 million to 3.00 million	0
RMB1.01 million to 2.00 million	2
RMB0 to 1.00 million	3

STAFF HOUSING

According to the relevant regulations of the State and local governments, the Company established a housing fund for the employees of the subsidiaries of the Company.

REPORT OF THE BOARD OF DIRECTORS

STAFF MEDICAL INSURANCE SCHEME

In accordance with the requirements set by the State and local governments, the Company and its subsidiaries have enrolled their employees in medical insurance schemes.

RETIREMENT SCHEMES

The Company and its subsidiaries have implemented specified retirement contribution schemes in accordance with relevant requirements of the State and local governments.

Pursuant to the specified retirement contribution schemes, the Company and its subsidiaries have made contributions in line with the terms and obligations set out in the publicly administered retirement plans. The Company has no other obligations to pay further contributions after paying the prescribed contributions. Contributions payable during the year are recorded as expenses or capital expenditures, and are accounted for as labor cost.

During the financial year ended 31 December 2024, there were no forfeited contributions to the retirement schemes that the Group could utilise to reduce the contributions payable in future years. Accordingly, no forfeited contributions were utilised during the financial year and no forfeited contributions were available as at 31 December 2024 to reduce the level of future contributions to be made by the Group to the retirement schemes.

CONTROLLING SHAREHOLDERS' INTERESTS IN CONTRACTS OF SIGNIFICANCE

Save as disclosed in the section headed "Connected Transactions and Continuing Connected Transactions" and Note 36 to the consolidated financial statements in this report, there was no other contract of significance entered into between the Company or any of its subsidiaries and the controlling shareholders of the Company or any of its subsidiaries during the year ended 31 December 2024, and no contract of significance for the provision of services to the Company or any of its subsidiaries by a controlling shareholder of the Company or any of its subsidiaries was entered into during the year ended 31 December 2024.

EQUITY-LINKED AGREEMENTS

The Company has not entered into any equity-linked agreements during the reporting period nor has entered into any equity-linked agreements which subsisted at the end of the reporting period.

GENERAL MEETINGS

During the reporting period, the Company convened one annual general meeting and one extraordinary general meeting.

1. The Company's 2023 annual general meeting was held on 25 June 2024. The resolutions passed at the meeting were published in China Securities Journal and Shanghai Securities News on 26 June 2024.

2. The Company's 2024 first extraordinary general meeting was held on 12 December 2024. The resolutions passed at the meeting were published in China Securities Journal and Shanghai Securities News on 13 December 2024.

DISCLOSURE OF MAJOR EVENTS

In 2024, the Company actively leveraged its financing platform as a listed company to revitalize existing assets and explore financing opportunities through multiple channels and continued to issue equity-type REITs financing products as needed. Five issuances of equity-type REITs financing products were completed in the Shanghai Stock Exchange, bringing in a total of RMB23.051 billion of equity capital for the Company, setting a number of records for the best issuance interest rates and received several industry awards, showcasing the high recognition from the capital markets and establishing a strong market brand image.

OTHER DISCLOSURE

An analysis of the Company's performance using key financial performance indicators and a discussion on the principal risks and uncertainties facing the Company are set out in the section headed "Management's Discussion and Analysis" in this annual report. Particulars on the significant events affecting the Company during the year are set out in the section headed "Major Corporate Events in 2024" in this annual report. In addition, discussions on the Company's environmental policies and performance, relationship with its major stakeholders, permitted indemnity provisions provided by the Company to its Directors and compliance with the relevant laws and regulations which have a significant impact on the Company are included in the sections headed "Management's Discussion and Analysis" and "Corporate Governance Report" in this annual report. These discussions form part of this Report of the Board of Directors.

REQUIREMENTS UNDER THE ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORTING GUIDELINES

In 2024, in accordance with the requirements under the Environmental, Social and Governance Reporting Code of the Hong Kong Stock Exchange, the Company has completed the preparation and disclosure of the Environmental, Social and Governance Report in due time, which will be published on the website of the Company (www.hpi.com.cn: Investor Relationship-ESG Report) and the website of Hong Kong Stock Exchange (www.hkex.com.hk) as scheduled. To request a printed copy of the Company's 2024 ESG Report, please contact the Company by emailing zqb@hpi.com.cn.

The Company has successfully prepared and disclosed high-quality ESG reports for nine consecutive years. For the second consecutive year, the Company's ESG practices have been selected by the State-owned Assets Supervision and Administration Commission (SASAC) as "ESG-Pioneer 100 Index of Listed Companies of Central Enterprises (2024)", and have been included in the "Blue Book on Environmental, Social and Governance (ESG) of Listed Companies of Central Enterprises". For the third consecutive year, the Company has been awarded the "2024 Best Sustainability Practice Case of Listed Companies" by the China Association for Public Companies (CAPCO), recognized with the "ESG Excellent Practice in 2024" by China Media Group (CMG) and China Enterprise Reform and Development Society (CERDS) and featured in the 2024 ESG Excellence Practices Report, honored as an "Outstanding ESG Sustainable Development Case" jointly by CERDS and China Comment, and certified as an "Exemplary Social Responsibility Initiative in Power Industry" by China Electricity Council (CEC). The Company's ESG achievements have been extensively covered by CCTV and Xinhua News Agency.

REPORT OF THE BOARD OF DIRECTORS

CORPORATE GOVERNANCE CODE

During the reporting period, the Company complied with all the code provisions contained in the second part of Appendix C1 to the Listing Rules.

Please refer to the section "Corporate Governance Report" in the annual report for details.

DESIGNATED DEPOSIT

As at 31 December 2024, the Company and its subsidiaries did not have any entrusted deposit placed with any financial institutions within the PRC nor did them any overdue time deposit which could not be recovered.

POVERTY ALLEVIATION EXPENDITURE

In 2024, the expenditure on targeted poverty alleviation in the PRC, in the name of the Company, totaled RMB17.756 million.

LEGAL PROCEEDINGS

As at 31 December 2024, neither the Company nor its subsidiaries were involved in any material litigation or arbitration, nor were there any material litigation or claims pending, threatened, or made against them.

CHANGES IN INFORMATION OF DIRECTORS, SUPERVISORS AND CHIEF EXECUTIVE OFFICER DURING THE REPORTING PERIOD

As at the date of this annual report, there have been no changes in the information of Directors, Supervisors, and the Chief Executive Officer that are required to be disclosed pursuant to Rule 13.51B(1) of the Hong Kong Listing Rules.

ANNUAL GENERAL MEETING AND CLOSURE OF REGISTER

As the Company has yet to confirm the date of the 2024 annual general meeting, the record date(s) for determining the eligibility to attend and vote at the 2024 annual general meeting, entitlement to the final dividend and the period(s) for closure of register, the Company will announce such details in the notice of the 2024 annual general meeting once confirmed. The notice is expected to be issued to shareholders by the end of April or in May 2025.

MATERIAL ACQUISITIONS AND DISPOSALS OF SUBSIDIARIES, ASSOCIATES AND JOINT VENTURES

Except for the acquisition of 30% of the equity interest in Baxianjiao Company disclosed in the "Continuing Connected Transactions and Connected Transactions" section of this report, during the reporting period, the Group did not have any material acquisitions or disposals of subsidiaries, associates, and joint ventures.

AUDITORS

As approved at the 2023 first extraordinary general meeting, Ernst & Young Hua Ming LLP was appointed as the Company's domestic auditor for 2024, and Ernst & Young, registered public interest entity auditor, was appointed as the Hong Kong auditor of the Company for 2024. The Company did not change its auditors in the past three years.

By Order of the Board
Wang Kui
Chairman

Beijing, the PRC
25 March 2025

REPORT OF THE SUPERVISORY COMMITTEE

TO ALL SHAREHOLDERS,

In 2024, the Supervisory Committee of the Company faithfully performed its supervisory duties, conscientiously carried out its work, actively safeguarded the lawful rights and interests of the Company and all shareholders, and provided a strong safeguard for the sustained, healthy and stable development of the Company in strict compliance with the Company Law, the Securities Law, the Articles of Association and other related laws and regulations.

The report on the work of the Supervisory Committee in 2024 is as follows:

1. EVALUATION OF THE BOARD AND THE COMPANY'S OPERATIONS IN 2024

During the reporting period, guided by Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, the Board of Directors of the Company comprehensively implemented the spirit of the 20th National Congress of the CPC and the Third Plenary Session of the 20th CPC Central Committee. We rigorously fulfilled regulatory requirements in the jurisdictions where the Company is listed, prioritized the acceleration of building a world-class enterprise, balanced development and security, and emphasized operational excellence, value creation, and brand building. By leveraging our strategic leadership capabilities and driving decision-making efficiency and quality through specialization and diversification, we significantly strengthened the Company's capabilities in secure supply assurance, lean management, green development achievements, technological innovation, and governance effectiveness. The Company's management team efficiently implements the decisions and deployments of the Board of Directors, unites and leads all staff to carry the responsibility, and promotes the safety production, operation and development, and scientific and technological innovation work with a new role and a new action to make new achievements continuously.

The Supervisory Committee is of the view that during the reporting period, the Board has effectively performed its core functions of "determining strategies, making decisions and preventing risks", adhered to scientific decision-making, standardised operation and precise implementation, and ensured the sustainable development of the Company and the enhancement of shareholders' value. All Directors were dedicated and diligent, actively attending the meetings of the Board of Directors and various specialised committees, and laying a solid foundation for the continuous improvement of the Company's governance level by virtue of their rich professional experience, forward-looking strategic vision and diversified industry perspectives. The workflow of the Board of Directors of the Company was in full compliance with the laws and regulations of the place in which the Company's shares are listed and the Articles of Association, and the decisions made conformed to the need of the Company's management and development. There were no actions detrimental to the interests of the Company and all Shareholders. The management of the Company carried out work in strict accordance with relevant systems, and achieved remarkable operating results. There was no violation of any regulations in the operation.

2. CARRY OUT SUPERVISION IN ACCORDANCE WITH STANDARDS

(1) Convening the Meetings of the Supervisory Committee

During the reporting period, the Supervisory Committee of the Company convened a total of 4 meetings, including 3 on-site meetings, and considered and passed 15 proposals, including the annual work report of the Supervisory Committee, the financial final report, the budget report, the provision of significant asset impairment. All the proposals were carefully studied, earnestly discussed and rigorously considered by all the Supervisors. Such meetings were convened in compliance with regulatory rules of the place in which the Company's shares are listed and relevant requirements of the Articles of Association and the Rules of Procedure of the Supervisory Committee, and the proposals and resolutions discussed at the meeting were disclosed and announced in a timely manner in accordance with relevant provisions regarding information disclosure.

(2) Training and Study of the Supervisors

Supervisors of the Company paid close attention to industry trends and training information, and consciously participated in the specialised training provided by regulatory bodies and industry associations according to their own needs in performing their duties. During the reporting period, the Supervisors of the Company participated in special trainings for 9 attendances in total, covering various fields such as corporate governance, laws and regulations, financial auditing and risk management, etc., so as to achieve the continuous improvement of their professionalism and ability to perform their duties, and provide guarantee for the better performance of their supervisory functions.

3. FULFILLING SUPERVISORY DUTIES IN ACCORDANCE WITH THE LAW

(1) Supervising the Standard Operation of the Company

During the reporting period, the Supervisory Committee of the Company proactively performed its functions of supervision and examination, conducted serious supervision and examination on the procedures for convening general meetings and board meetings and the implementation of resolutions, performance of duties by Directors and the senior management of the Company and the internal control, financial management, related party transactions and information disclosure of the Company through various approaches including attending general meetings and the Board meetings, participating in the chairman's thematic meeting and the Executive Committee Meeting and inquiring by telephone, and prudently expressed its opinions and recommendations.

The Supervisory Committee is of the view that the convening, holding and deliberation procedures of the shareholders' general meetings and the meetings of the Board of Directors complied with national laws and regulations, regulatory rules of the place in which the Company's shares are listed and relevant requirements of the Articles of Association, and the deliberation and decision-making on major issues were legal, compliant and reasonable. The Directors and senior management of the Company, in the course of performing their duties, diligently implemented the resolutions of the general meetings and the Board meetings. There were no detrimental actions to the interests of the Company and its Shareholders.

(2) Examining the Financial Information and Regular Reports of the Company

During the reporting period, at the annual, first quarter, semi-annual and third quarter meetings of the Supervisory Committee, the Supervisory Committee fully discussed the Company's periodic reports, financial reports, profit distribution plans, provision for asset impairment, and financial audit reports issued by internal and external auditors, and put forward relevant opinions and suggestions.

The Supervisory Committee is of the view that the Company has a sound financial system and standardized management operations. The preparation, audit and disclosure procedures of the regular reports and financial statements have complied with the requirements of the Company Law, the Accounting Law and the Articles of Association of the Company, which truly, accurately and completely reflected the financial position and operating results of the Company in all material respects. The audit report with standard and unqualified opinions issued by the auditors of the Company is objective and fair, and in line with the actual situation of the Company, and fully reflects the transparency and credibility of the Company's financial information.

REPORT OF THE SUPERVISORY COMMITTEE

(3) Examining Connected Transactions

During the reporting period, the Supervisory Committee of the Company carefully examined the budget and implementation of the Connected transactions of the Company, reviewed proposals including the Proposal regarding the Connected Transactions of the Capital Increase in Huaneng Shidaowan Nuclear Power Development Co., Ltd., the Proposal regarding the Connected Transactions of the Exchange's Equity-Consolidated REITs (Shandong Company Project), the Proposal regarding the Connected Transactions of the Exchange's Equity-Consolidated REITs (Jiangsu Company Project), the Proposal regarding the Continuing Connected Transactions for 2025 between the Company and Huaneng Group, the Proposal regarding the Establishment of a Joint Venture Company between the Company and Related Parties through presenting at the Board meetings and attending the general meetings, and supervised the compliance, fairness and necessity of connected transactions and the truthfulness, accuracy and completeness of the disclosure of relevant information.

The Supervisory Committee is of the view that such Connected transactions meet the needs of the Company's strategic development planning and are in the interests of the Company as a whole, the transaction terms were fair and equitable, and the procedures of the transactions are in strict compliance with the relevant laws and regulations and the provisions of the Articles of Association of the Company. The Company has fulfilled its information disclosure obligations in respect of the connected transactions in a truthful, accurate and complete manner in accordance with the information disclosure requirements. There were no detrimental actions to the interests of the Company and its Shareholders.

(4) Checking the Information Disclosure of the Company

The Supervisory Committee continued to supervise the information disclosure of the Company. The Supervisory Committee carefully reviewed matters disclosed in the annual report, first-quarter, semi-annual report and third-quarter report and relevant disclosure procedures through holding meetings of the Supervisory Committee on a regular basis, and signed to confirm. The Supervisory Committee also checked the procedures of filing insider information and relevant filing materials, and faithfully performed the function of supervision on information disclosure.

The Supervisory Committee is of the view that the Company has established a well-functioning and effective information disclosure system. The procedures of information disclosure strictly complied with the relevant rules and regulations such as "the Rules on Information Disclosure Management" and "the Rules on Insider Information Management". During the reporting period, the Company completed the disclosure of domestic and overseas announcements 262 times, with zero error in information disclosure, and was continuously awarded Grade A rating by SSE, which is an achievement worthy of recognition.

(5) Reviewing the Board's Assessment Report on Internal Control

The Supervisory Committee listened to the reports on the establishment, implementation and examination of the Company's internal control by attending the annual regular meeting of the Board of Directors of the Company, and convened supervisor meetings to review the Board's assessment report on internal control and carried out detailed and comprehensive review of the establishment and operation of internal control of the Company during the reporting period.

The Supervisory Committee is of the view that the Company has continuously improved its internal control system, with relevant internal control policies comprehensively covering key areas such as production and operations, strategic development, and risk management. All internal control measures have been effectively implemented and consistently executed. External auditors have issued unqualified audit reports on internal controls for 19 consecutive years. The assessment report on internal control issued by the Board of Directors is comprehensive in content and well-supported by evidence, fairly and objectively reflecting the effectiveness of the Company's internal control system in both its development and practical operation, thereby fully demonstrating the soundness of the Company's internal controls.

In 2024, the Supervisory Committee of the Company, in strict accordance with the requirements of laws and regulations and the provisions of the Articles of Association, consistently prioritizing the safeguarding the Company's interests and shareholders' rights, and diligently fulfilled its supervisory duties, contributing to elevating the Company's governance standards to new heights. Looking forward to 2025, the Supervisory Committee will continue to aim at promoting the enhancement of the effectiveness of the Company's governance, and actively support the Company in building a governance system and model better aligned with future development needs, so as to help the Company achieve high-quality and sustainable development.

Huaneng Power International, Inc.
Supervisory Committee

Beijing, the PRC
25 March 2025

PROFILES OF DIRECTORS, SUPERVISORS AND SENIOR MANAGEMENT

董事、監事簡介

Directors

WANG Kui, aged 57, currently the chairman and secretary of the CPC Committee of the Company and an assistant to the president of Huaneng Group. He previously served as vice president and CPC Leadership Group member of Xinjiang Energy Development Co., Ltd. (from August 2007 to November 2008, he was a member of the standing committee of the CPC Committee and Deputy Governor of the Kizilsu Kirghiz Autonomous Prefecture in Xinjiang), the vice president and the deputy party secretary of CPC Leadership Group, president and deputy party secretary CPC Leadership Group (presided over the work) of Shanxi branch of the Company, chief of the Planning and Development Department, the deputy chief economist and the chief of the Planning and Development Department of Huaneng Group, director of the thermal power construction center and director of the engineering technology and economic management center of Huaneng Group. He graduated from Guanghua School of Management, Peking University, majoring in Business Administration for Senior Executives, MBA. He is a professor-level senior engineer.

WANG Zhijie, aged 60, currently the vice chairman and a member of CPC Committee of the Company. He previously served as manager of the Manager Work Department and Human Resources Department of the Company, CPC Leadership Group member of HIPDC, leader of Discipline Inspection Team, minister of the Organisation Department (director of Human Resources Department) of the CPC Leadership Group in Huaneng Group. He graduated from Guanghua School of Management, Peking University, majoring in Business Administration for Senior Executives, EMBA. He is a senior engineer.

HUANG Lixin, aged 58, currently the director, president, and vice secretary of CPC Committee of the Company. He previously served as chief accountant of Huaneng Nantong branch (power plant), deputy manager, manager of Finance Department of the Company and chief of the Finance Department of Huaneng Group, chief accountant and CPC Committee member of the Company, deputy chief of thermal power construction center and the deputy chief of engineering technology and economic management center of Huaneng Group. He graduated from the Economic Management School of Tsinghua University with an EMBA degree. He is a professor-level senior accountant.

DU Daming, aged 58, currently the director of the Company and the deputy chief economist of the Huaneng Group. He previously served as the chief of Office of Huaneng Group, chief of Board Office, vice president, CPC Leadership Group member, general legal counsel, secretary to the Board of the Company, deputy executive chief of Electric Power Development Division, deputy executive chief of Shale Gas Development and Utilization Office of Huaneng Group, vice president of Green Coal Electricity Co., Ltd., vice chairman, president, vice secretary of CPC Committee of HIPDC, deputy executive chief of equity management center of Huaneng Group. He graduated from North China Electric Power University with a master's degree, majoring in electrical engineering. He is a senior engineer.

ZHOU Yi, aged 57, currently the director of the Company, general legal counsel (deputy chief engineer level), Chief Compliance Officer, chief of Corporate Law Department (Reform Office) of Huaneng Group, managing member of China Management Sciences Society. He previously served as the chief of the secretariat of Office and deputy director of General Office of Huaneng Group, manager of the Manager Work Department of the Company, chief of Corporate Management Department, chief of Corporate Management and Legal Compliance Department of Huaneng Group. He graduated from the School of Economics of Remin University of China with a master's degree in Economics majoring in political science and economy and a doctor's degree majoring in management. He is a professor-level senior economist.

LI Lailong, aged 56, currently the director of the Company, the director of Strategic Development Department (Emerging Industries Department) of the Huaneng Group, vice chairman of Energy and Meteorology Committee of Chinese Society for Electrical Engineering, vice chairman of Offshore Wind Power Technology Committee of Chinese Society for Electrical Engineering, chairman of the New Energy Intelligent Power Generation and Equipment Committee, vice chairman of the Academic Committee of the Key Open Laboratory of Energy Meteorology, China Meteorological Administration. He was the plant manager of Huaneng Nanjing Power Plant, the plant manager of Huaneng Fuzhou Power Plant, and the vice president of Huaneng Jiangsu branch, deputy chief and chief of Planning and Development Department of Huaneng Group, chief of New Energy Business Department. He graduated from School of Energy and Power Engineering of Xi'an Jiaotong University, majoring in reactor engineering, with a bachelor's degree in engineering and a master's degree in business administration. He is a professor-level senior engineer.

CAO Xin, aged 53, currently the director of the Company, president, vice chairman of Hebei Construction & Investment Group Co., Ltd., president of Yanshan Development (Yanshan International Investment) Co., Ltd., chairman of Hebei Construction & Investment Energy Co., Ltd. and chairman of China Suntien Green Energy Corporation Limited. He previously served as the vice president of Hebei Construction & Investment Group Co., Ltd., Chief Executive Officer of China Suntien Green Energy Corporation Limited, president assistant and manager of the Second Department of Public Utilities of Hebei Construction & Investment Company. He graduated from Renmin University of China, majoring in national economics with a doctoral degree. He is a professor-level senior economist.

PROFILES OF DIRECTORS, SUPERVISORS AND SENIOR MANAGEMENT

LI Haifeng, aged 45, currently the director of the Company. He previously served as the deputy president and vice chairman, the president and chairman of Liaoning Energy Investment (Group) Co., Ltd., the secretary of the CPC Committee and chairman of Liaoning Energy Investment (Group) Co., Ltd. He graduated from Tsinghua University, majoring in materials science and engineering, and a doctoral degree in engineering. He is a professor-level senior research engineer.

DING Xuchun, aged 57, currently the director of the Company, the vice president and member of CPC Committee and chief safety officer of Jiangsu Guoxin Investment Group Limited. He previously served as vice president, president, deputy secretary of CPC Committee, secretary of CPC Committee, chairman of Jiangsu Guoxin Jingjiang Power Generation Co., Ltd., secretary of CPC Committee and chairman of Jiangsu Guoxin Yangzhou Power Generation Co., Ltd. He graduated from Southeast University and obtained a bachelor's degree and a master's degree in engineering. He is a researcher-level senior engineer.

WANG Jianfeng, aged 47, currently the director of the Company, the president of Nantong Investment Management Co., Ltd. He previously served as chief of Office and also Supervisory Office of Nantong National Asset Investment Management Co., Ltd., chief of Party-Masses Human Resources (concurrently Supervisory Department and Audit Department) of Nantong Urban Construction Group Co., Ltd., vice president of Nantong Investment Management Co., Ltd. He graduated from Xuzhou Normal University, majoring in Chinese Language and Literature, and Suzhou University, School of Education, majoring in Management of Higher Education, with a Master of Education (MEd).

XIA Qing, aged 67, currently the independent director of the Company, a professor in Tsinghua University, director of Carbon Neutral Sub-Committee on Electricity of the National Energy Internet, the expert of the National Electricity Exchange Agency Alliance, the expert of Guangzhou Electricity Trading Centre, the member of the Southern Regional Electricity Market Management Committee, the expert of China Southern Power Grid Corporation, the deputy director of the Power Market Special Committee of China Electrical Engineering Society, the deputy director of the Energy Storage Committee of the China Energy Research Association, independent director of Beijing HyperStrong Technology Co., Ltd. He was an associate professor, professor, and chairman of the degree committee at Tsinghua University. He previously served as the Independent Director of the eighth session of Board of the Company. He graduated from Tsinghua University with a doctoral degree in electrical engineering.

HE Qiang, aged 72, currently the independent director of the Company, a professor and doctoral supervisor of School of Finance at Central University of Finance and Economics, independent director of Shenzhen Kinwong Electronic Co., Ltd., independent director of Ucap Cloud Information Technology Co., Ltd., independent director of Guo Yuan Futures Co., Ltd., independent director of China Minsheng Trust Co., Ltd., independent director of Yingda Asset Management Co., Ltd. He previously served as the director of the Securities and Futures Research Institute of the Central University of Finance and Economics, a counselor of the Beijing Municipal Government, a member of the 11th, 12th and 13th National Committee of the Chinese People's Political Consultative Conference (CPPCC), a member of the Economic Committee. He is receiving special government allowance of the State Council. He graduated from Zhongnan University of Economics and Law with a bachelor's degree in political economy.

ZHANG Liying, aged 64, currently the independent director of the Company, executive member of the Chinese Society for Electrical Engineering and chairman of the Urban Power Supply and Reliability Committee, chairman of the Committee of Women Science and Technology Workers, chief expert of the Expert Committee of the China Electricity Council, and Independent Director of Sinopec Group. She previously served as the chief engineer, president assistant and consultant of State Grid Corporation of China. She graduated from North China Electric Power University, majoring in technical economics and management, and obtained a doctoral degree. She is a professorial senior engineer, and an expert enjoying the State Council's special government allowance.

ZHANG Shouwen, aged 58, currently the independent director of the Company, a professor and doctoral supervisor at the Law School of Peking University, chief of the Institute of Economic Law of Peking University, dean of the Institute of Rule of Law and Development of Peking University. He was a lecturer, associate professor and professor at the Law School of Peking University, independent director of the seventh and eighth session of Boards of the Company. He graduated from the Law School of Peking University, majoring in international economic law, and obtained a doctoral degree.

DANG Ying, aged 50, currently the independent director of the Company. She previously served as project manager and senior project manager of Pan-China Certified Public Accountants LLP, deputy chief accountant and president of Finance Department, assistant to the president and chief of Strategy Department and Operation Department of China North Industries Corporation, deputy director of Finance Department and Civilian Products Management Department of China North Industries Group Corporation Limited, the vice president and Chief Financial Officer of Huajin International Trading Co., and consultant in Management Accounting of the Ministry of Finance. She graduated from China Academy of Financial Sciences, majoring in accounting, and obtained a doctoral degree. She is a Certified Public Accountant in China, a Fellow Chartered Accountant (FCA) in the UK and a senior accountant.

PROFILES OF DIRECTORS, SUPERVISORS AND SENIOR MANAGEMENT

Supervisors

CAO Shiguang, aged 56, currently the chairman of the Supervisory Committee of the Company, deputy chief accountant, chief of Finance and Assets Department of Huaneng Group, council member of Jianxin Pilot Strategic Emerging Industries Development Fund, vice chairman of the Specialized Committee on Electricity Finance and Economics of China Electricity Council, and representative of the China Association of Inter-bank Market Dealers. He was chief of the Budget and Comprehensive Planning Department of Huaneng Group, president and vice secretary of the CPC Committee of Huaneng Renewables Corporation Limited, chairman and secretary of the CPC Committee of Huaneng Finance Co., Ltd, and chief of Sharing Center of Huaneng Group. the He graduated from the Department of Electrical Engineering of Harbin Institute of Technology with a doctor's degree majoring in electrical engineering and obtained a doctoral degree in engineering. He is a professor-level senior economist.

KOU Yaozhou, aged 55, currently the vice chairman of the Supervisory Committee of the Company, General Counsel and an assistant to the president of Dalian State-owned Capital Management and Operation Co., Ltd. She previously served as chief accountant of Dalian Equipment Investment Group Co., Ltd. She graduated from Dongbei University of Finance & Economics, majoring in taxation, obtained a bachelor's degree in economics. She is a senior accountant.

XIA Aidong, aged 56, currently the supervisor of the Company, chief of Audit Department and Audit Center of Huaneng Group. He previously served as the chief of Comprehensive Division and Budget Division of Finance Department and the deputy chief of the Budget and Comprehensive Planning Department of Huaneng Group. He graduated from Beijing Business School, majoring in accounting. He is a professor-level senior accountant.

SONG Taiji, aged 50, currently the supervisor of the Company, vice president and CPC Committee member of China Hua Neng Group Hong Kong Limited, vice president and CPC Committee member of HIPDC, and executive director and secretary of CPC Committee of Huaneng International Engineering Technology Co., Ltd. He was the president assistant of Huaneng Shandong Power Generation Co., Ltd. and General Manager and Deputy Secretary of Party Committee of Huaneng Shandong Ruyi (Pakistan) Energy (Private) Co., Ltd., deputy chief of Overseas Business Department of Huaneng Group. He graduated from North China Electric Power University, majoring in electrical engineering, and he obtained the bachelor's degree in engineering. He is a professor-level senior engineer.

ZHU Tong, aged 53, currently the supervisor and director of Human Resources and Party Construction Department. He served as deputy chief and chief of the Personnel Division of the Human Resources Department, and deputy director of the Party-Masses Work Department (Human Resources Department) of the Company. He graduated from North China Electric Power University with a Master of Engineering (MEng) in industrial engineering. He is a senior engineer.

WANG Yu, aged 52, currently the supervisor and director of Legal and Compliance Department. He previously served as the deputy director, director of the fund settlement centre of the Finance Department, chief of the Second Fund Division and chief of the Fund Division of the Finance and Budget Department of the Company, and deputy director of the Disciplinary Inspection and Audit Department of the Company. He graduated from Ocean University of China, majoring in project management. He obtained a Master of Engineering (MEng).

Biographies of Senior Management

QIN Haifeng, aged 56, currently the vice president and member of CPC Committee of the Company. He previously served as vice president and CPC Leadership Group member of Jiangsu branch of the Company, executive director, president and deputy party secretary of CPC Leadership Group of Huaneng Xinjiang Energy Development Co., Ltd., president and deputy secretary of CPC Committee of Huaneng Shandong Power Generation Co., Ltd. and chairman and secretary of CPC Committee of Huaneng Gansu Energy Development Company Ltd. He graduated from Xi'an Jiaotong University, majoring in electronic and information engineering and obtained a Master in Engineering. He is a professor-level senior engineer.

DUAN Rui, aged 57, currently a member of the CPC Committee of the Company, and secretary of the Discipline & Inspection Commission. He was leader of the Inspection Team of Huaneng Group and deputy director of the Department of Supervision, a member of the Discipline Inspection Group of Party Group, deputy secretary of directly affiliated CPC committee, the secretary of the Discipline Inspection Commission, a member of the CPC Committee and secretary of the Discipline Inspection Commission of HIPDC. He majored in the economic management and graduated from the Party School of the Inner Mongolia Autonomous Region with a master degree. He is a professor-level senior economist.

PROFILES OF DIRECTORS, SUPERVISORS AND SENIOR MANAGEMENT

HUANG Chaoquan, aged 59, currently the vice president, a member of CPC Committee, Chairman of trade union and the Secretary to the Board of the Company. He was the director of the Board Office, manager of the Corporate Management Department and director of the Administration Department of the Company. He graduated from Harbin University of Science and Technology with a Master of Engineering (MEng) in Management Engineering. He is a professor-level senior economist.

DU Canxun, aged 56, currently the vice president and member of CPC Committee of the Company. He previously served as the director of construction management bureau and the secretary of the CPC Committee of Huaneng Jinghong Hydropower Station, as well as the plant manager of Jinghong Power Plant, deputy director of Production Management Department of Huaneng Group, executive director and secretary of CPC Committee of Huaneng Tibet Yarlung Zangbo River Hydropower Development & Investment Company Ltd. and executive director and president of Tibet branch of Huaneng Group. He graduated from the School of Information Engineering of Central South University, majoring in control science and engineering and obtained a doctoral degree. He is a professor-level senior engineer.

Profiles of Resigned Directors, Supervisors and Senior Management

Zhu Daqing, aged 52, During the reporting period, he served as Chief Accountant and member of CPC Committee of the Company. He previously served as the deputy manager of the Finance Department of the Company, Chief Accountant of Huaneng Shanghai Combined CYCLE POWER Co., Ltd., manager of the Audit Department of the Company, manager of the Finance Department of HIPDC, and General Manager and vice secretary of the CPC Committee of Huaneng Xinjiang Energy Development Co., Ltd. He graduated from Beijing Jiaotong University, majoring in Industrial Economics and obtained a doctoral degree. He is a professor-level senior accountant.

CORPORATE INFORMATION

Legal Address of the Company	Huaneng Building 6 Fuxingmennei Street Xicheng District Beijing The People's Republic of China
Company Secretary	Huang Chaoquan Huaneng Building 6 Fuxingmennei Street Xicheng District Beijing The People's Republic of China
Authorized Representatives	Wang Kui Huang Chaoquan
Hong Kong Share Registrar	Hong Kong Registrars Limited Shops 1712–1716 17th Floor, Hopewell Centre 183 Queen's Road East Hong Kong

LEGAL ADVISERS TO THE COMPANY

As to PRC law	Haiwen & Partners 20th Floor, Fortune Finance Center No.5 Dong San Huan Central Road Chaoyang District Beijing The People's Republic of China
As to Hong Kong law	Haiwen & Partners LLP Suites 1101–1104, 11/F, One Exchange Square, 8 Connaught Place Central, Hong Kong

CORPORATE INFORMATION

AUDITORS OF THE COMPANY

Domestic Auditors	Ernst & Young Hua Ming LLP 17/F, Ernst & Young Tower Oriental Plaza 1 East Chang'an Avenue Dongcheng District Beijing The PRC
Hong Kong Auditors	Ernst & Young *Registered Public Interest Entity Auditor* 27/F, One Taikoo Place 979 King's Road Quarry Bay, Hong Kong

LISTING INFORMATION

H Shares:	The Stock Exchange of Hong Kong Limited Stock Code: 902
A Shares:	Shanghai Stock Exchange Stock Code: 600011

PUBLICATIONS

The Company's 2024 interim report (A share version and H share version) was published in August 2024 and the 2024 annual report (A share version and H share version) will be published in April 2025. The Company shall, in compliance of the Shanghai Stock Exchange, prepare quarterly reports. Copies of the interim and annual reports will be made available at:

Beijing:	Huaneng Power International, Inc. Huaneng Building 6 Fuxingmennei Street Xicheng District Beijing The People's Republic of China Tel: (8610)-6322 6999 Fax: (8610)-6322 6888
Hong Kong:	Wonderful Sky Financial Group Limited 9th Floor, The Center 99 Queen's Road Central Hong Kong Tel: (852) 2851 1038 Fax: (852) 2815 1352
The website of the Company:	http://www.hpi.com.cn

GLOSSARY

Equivalent Availability Factor (EAF):	Percentage on duration of usable hours on generating units in period hour, i.e. $$EAF= \frac{\text{Available Hours (AH)} - \text{Equivalent Unit Derated Hours (EUNDH)}}{\text{Period Hour (PH)}} \times 100\%$$
Gross Capacity Factor (GCF):	$$GCF= \frac{\text{Gross Actual Generation (GAAG)}}{\text{Period Hour (PH)} \times \text{Gross Maximum Capacity (GMC)}} \times 100\%$$
Weighted Average Coal Consumption Rate for Power Sold:	The standard of measurement on average consumption of coal for the production of every one kWh of electricity from a coal-fired generating unit. Unit: gram/kWh or g/kWh.
Weighted Average Coal Consumption Rate for Power Generated:	The standard of measurement on average consumption of coal for the generation of every one kWh of electricity from a coal-fired generating unit. Unit: gram/kWh or g/kWh.
Weighted Average House Consumption:	The rate of electricity consumption during power production versus power generating unit: %.
Utilization Hour:	The operation hour coefficient converted from actual gross power generation of generating units to maximum gross capacity (or fixed capacity).
Capacity Rate:	Ratio between average capacity and maximum capacity which indicates the difference in capacity. The larger the ratio, the more balanced the power production, and the higher the utilization of facilities.
Power Generation:	Electricity generated by power plants (generating units) during the Reporting Period, or "power generation". It refers to the consumed generated electricity produced by generating units with power energy being processed and transferred, or the product of actual consumed electricity generated by generating units and actual operation hours of generating units.
Electricity Sold:	Electricity sold by power plants to grid companies.

GW: Unit of power generation, = 10^9W, gigawatt
MW: = 10^6W, megawatt
kW: = 10^3W, kilowatt
kWh: Unit of power, kilowatt hour

INDEPENDENT AUDITOR'S REPORT

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To the shareholders of Huaneng Power International, Inc.
(Established in the People's Republic of China with limited liability)

OPINION

We have audited the consolidated financial statements of Huaneng Power International, Inc. (the "Company") and its subsidiaries (the "Group") set out on pages 121 to 337, which comprise the consolidated statement of financial position as at 31 December 2024, and the consolidated statement of profit or loss and other comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flows for the year then ended, and notes to the consolidated financial statements, including material accounting policy information.

In our opinion, the consolidated financial statements give a true and fair view of the consolidated financial position of the Group as at 31 December 2024, and of its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with International Financial Reporting Standard ("IFRS") accounting standards issued by the International Accounting Standards Board ("IASB") and have been properly prepared in compliance with the disclosure requirements of the Hong Kong Companies Ordinance.

BASIS FOR OPINION

We conducted our audit in accordance with International Standards on Auditing ("ISAs") issued by the International Auditing and Assurance Standards Board ("IAASB"). Our responsibilities under those standards are further described in the *Auditor's responsibilities for the audit of the consolidated financial statements* section of our report. We are independent of the Group in accordance with the Code of Ethics for Professional Accountants (the "Code") issued by the Hong Kong Institute of Certified Public Accountants, and we have fulfilled our other ethical responsibilities in accordance with the Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

KEY AUDIT MATTERS

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. For each matter below, our description of how our audit addressed the matter is provided in that context.

We have fulfilled the responsibilities described in the *Auditor's responsibilities for the audit of the consolidated financial statements* section of our report, including in relation to these matters. Accordingly, our audit included the performance of procedures designed to respond to our assessment of the risks of material misstatement of the consolidated financial statements. The results of our audit procedures, including the procedures performed to address the matters below, provide the basis for our audit opinion on the accompanying consolidated financial statements.

INDEPENDENT AUDITOR'S REPORT

KEY AUDIT MATTERS (CONTINUED)

Key audit matter

Impairment of property, plant and equipment

At 31 December 2024, the Group held property, plant and equipment ("PPE") with the amount of RMB402,936 million, representing 80.70% of the Group's total non-current assets. As described in Notes 2(g), 2(l), 4(b) and 7 to the consolidated financial statements, the Group is required to review PPE for impairment whenever events or changes in circumstances indicate that their carrying amounts may not be recoverable. Management performed an impairment assessment on such PPE by determining the recoverable amounts of the cash-generating units ("CGUs") that the PPE were allocated to. As a result of the impairment assessment, impairment losses of RMB1,611 million were recognised by the Group for the year ended 31 December 2024.

Auditing management's impairment assessment of PPE was complex due to the significant estimates and judgements involved in the projections of future cash flows, including the future sales volumes, fuel prices and discount rates applied to these forecasted future cash flows. These estimates and judgements may be significantly affected by changes in future market, policies or economic conditions.

How our audit addressed the key audit matter

We obtained an understanding of, evaluated the design of, and tested the operating effectiveness of controls over the PPE impairment assessment process including tests of controls over management's review of the significant assumptions used in the impairment assessment.

Among other audit procedures performed, we evaluated management's assessment of impairment indicators, compared the methodology used by the Group to industry practice and tested the underlying data used in the projections. We also assessed the significant assumptions used in the calculations, which included, amongst others, the future sales volumes, fuel prices, and discount rates. We compared fuel prices to external industry outlook reports and analysed the history of management's estimates. In addition, we involved our valuation specialists to assist us in assessing the valuation methodologies and the assumptions used, including the discount rates.

We evaluated the sensitivity of the significant assumptions described above by assessing the changes to the recoverable amounts of the CGUs that the PPE were allocated to resulting from changes in these assumptions.

We also assessed the adequacy of the Group's disclosures regarding the impairment assessment of PPE.

INDEPENDENT AUDITOR'S REPORT

KEY AUDIT MATTERS (CONTINUED)

Key audit matter	How our audit addressed the key audit matter
Impairment of goodwill	
At 31 December 2024, the Group's goodwill was RMB14,389 million. As described in Notes 2(k), 2(l), 4(a) and 14 to the consolidated financial statements, the Group is required to, at least annually, perform impairment assessments of goodwill. Goodwill was allocated to each CGU or groups of CGUs for impairment testing. A goodwill impairment loss is recognised if the carrying amount of the CGU exceeds its recoverable amount. As a result of the impairment assessment, there were no goodwill impairment losses recognised by the Group for the year ended 31 December 2024. Auditing management's goodwill impairment assessment was complex because the determination of the recoverable amount of the underlying CGUs involves significant estimates and judgements, including the future sales volumes, fuel prices, gross margins and terminal growth rates used to estimate future cash flows and discount rates applied to these forecasted future cash flows of the underlying CGUs. These estimates and judgements may be significantly affected by changes in future market, policies or economic conditions.	We obtained an understanding of, evaluated the design of, and tested the operating effectiveness of controls over the impairment assessment process, including testing controls over management's review of the key assumptions used in the goodwill impairment assessment. Among other audit procedures performed, we compared the methodology used by the Group to industry practice, and tested the underlying data used in the forecast. We evaluated management's key assumptions used in the calculations, which included, amongst others, the future sales volumes, fuel prices, gross margins, terminal growth rates and discount rates. We compared fuel prices to external industry outlook reports and analysed the history of management's estimates. In addition, we involved our valuation specialists to assist us in assessing the valuation methodologies and the assumptions used, including the discount rates and terminal growth rates. We evaluated the sensitivity of the key assumptions described above by assessing the changes to the recoverable amounts of the underlying CGUs that the goodwill was allocated to resulting from changes in these assumptions. We also assessed the adequacy of the Group's disclosures regarding the impairment assessment of goodwill.

INDEPENDENT AUDITOR'S REPORT

KEY AUDIT MATTERS (CONTINUED)

Key audit matter	How our audit addressed the key audit matter
Recognition of deferred income tax assets	
At 31 December 2024, the Group had deferred income tax assets of RMB5,358 million from deductible temporary differences and tax losses carried forward before offsetting. At 31 December 2024, the Group did not recognise deferred income tax assets related to deductible temporary differences of RMB21,790 million and unused tax losses of RMB29,985 million. As described in Notes 2(x)(iii), 4(c) and 31 to the consolidated financial statements, the Group recognised deferred income tax assets to the extent that it is probable that future taxable profits and taxable temporary difference will be available to utilise the deductible temporary differences and tax losses carried forward. Auditing management's recognition of deferred income tax assets is complex because it involves management's significant estimation and assumptions, including future taxable profits, future tax rates, the reversal of deductible and taxable temporary differences, and the possible utilisation of tax losses carried forward that could be significantly affected by changes in tax law framework and future market, policies or economic conditions.	We obtained an understanding of, evaluated the design of, and tested the operating effectiveness of controls over the recognition of deferred income tax assets, including testing controls over management's review of the significant assumptions used in the taxable profit forecast. Among other audit procedures performed, we compared the future tax rates, the deductible and taxable temporary differences, and the possible utilisation of tax losses carried forward, with the tax law framework. We tested whether the Group's utilisation of tax losses carried forward and reversal of deductible temporary differences in management's calculation were less than the taxable profit and taxable temporary differences for the respective years. Further, we evaluated management's significant assumptions in determining the future available taxable profits, for example, the future sales volumes and fuel prices. We compared fuel prices to external industry outlook reports and analysed the history of management's estimates. We also tested the underlying data used in the taxable profit forecast and compared management's assumptions described above to the assumptions that management used to perform the impairment assessment of PPE and goodwill. We also assessed the adequacy of the Group's disclosures regarding the deferred income tax assets.

INDEPENDENT AUDITOR'S REPORT

OTHER INFORMATION INCLUDED IN THE ANNUAL REPORT

The directors of the Company are responsible for the other information. The other information comprises the information included in the Annual Report, other than the consolidated financial statements and our auditor's report thereon.

Our opinion on the consolidated financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

RESPONSIBILITIES OF THE DIRECTORS FOR THE CONSOLIDATED FINANCIAL STATEMENTS

The directors of the Company are responsible for the preparation of the consolidated financial statements that give a true and fair view in accordance with IFRS accounting standards issued by the IASB and the disclosure requirements of the Hong Kong Companies Ordinance, and for such internal control as the directors determine is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the directors of the Company are responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors of the Company either intend to liquidate the Group or to cease operations or have no realistic alternative but to do so.

The directors of the Company are assisted by the Audit Committee in discharging their responsibilities for overseeing the Group's financial reporting process.

AUDITOR'S RESPONSIBILITIES FOR THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Our report is made solely to you, as a body, and for no other purpose. We do not assume responsibility towards or accept liability to any other person for the contents of this report.

AUDITOR'S RESPONSIBILITIES FOR THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with ISAs, we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors.

- Conclude on the appropriateness of the directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

- Plan and perform the group audit to obtain sufficient appropriate audit evidence regarding the financial information of the entities or business units within the Group as a basis for forming an opinion on the consolidated financial statements. We are responsible for the direction, supervision and review of the audit work performed for purposes of the group audit. We remain solely responsible for our audit opinion.

INDEPENDENT AUDITOR'S REPORT

AUDITOR'S RESPONSIBILITIES FOR THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

We communicate with the Audit Committee regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the Audit Committee with a statement that we have complied with relevant ethical requirements regarding independence and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, actions taken to eliminate threats or safeguards applied.

From the matters communicated with the Audit Committee, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The engagement partner on the audit resulting in this independent auditor's report is Lin Yang.

Ernst & Young
Certified Public Accountants
Hong Kong

25 March 2025

CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

For the year ended 31 December 2024
(Prepared in accordance with IFRS Accounting Standards)
(Amounts expressed in thousands of RMB, except per share data)

	Notes	For the year ended 31 December 2024	2023
Operating revenue	5	**245,550,923**	254,396,695
Tax and levies on operations		**(2,008,686)**	(1,634,847)
Operating expenses, net			
Fuel		**(142,115,478)**	(156,569,158)
Maintenance		**(5,056,136)**	(4,456,767)
Provision for impairment losses on financial and contract assets		**(20,219)**	(129,009)
Depreciation	6	**(26,301,768)**	(25,492,280)
Labour	37	**(18,649,680)**	(17,762,377)
Service fees on transmission and transformer facilities of Huaneng International Power Development Company ("HIPDC")		**(47,947)**	(47,947)
Purchase of electricity		**(9,070,030)**	(11,978,026)
Others, net	6	**(18,283,466)**	(17,765,337)
Total operating expenses		**(219,544,724)**	(234,200,901)
Profit from operations		**23,997,513**	18,560,947
Interest income		**605,919**	506,878
Financial expenses, net			
Interest expense	6	**(7,786,460)**	(8,938,084)
Exchange loss and bank charges, net		**(260,237)**	(437,167)
Total financial expenses, net		**(8,046,697)**	(9,375,251)
Share of profits less losses of associates and joint ventures	8	**1,259,904**	854,156
Other investment gain	6	**4,647**	1,930,412
Profit before income tax expense	6	**17,821,286**	12,477,142
Income tax expense	33	**(3,815,093)**	(3,707,733)
Net profit		**14,006,193**	8,769,409

The notes on pages 132 to 337 are an integral part of these consolidated financial statements.

CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

FOR THE YEAR ENDED 31 DECEMBER 2024

(Prepared in accordance with IFRS Accounting Standards)

(Amounts expressed in thousands of RMB, except per share data)

	Notes	For the year ended 31 December 2024	2023
Other comprehensive income, net of tax			
Items that will not be reclassified to profit or loss in subsequent periods:			
Fair value changes of other equity instrument investments		**(53,003)**	(54,457)
Share of other comprehensive income of joint ventures and associates		**(56,274)**	(29,525)
Income tax effect		**13,251**	13,935
Items that may be reclassified subsequently to profit or loss:			
Share of other comprehensive income of joint ventures and associates		**10,530**	12,147
Cash flow hedges:			
Effective portion of changes in fair value of hedging instruments		**378,996**	(31,759)
Reclassification adjustments for (losses)/gains included in profit or loss		**(101,943)**	162,362
Exchange differences on translation of foreign operations		**4,268**	(168,052)
Income tax effect		**(47,099)**	(22,203)
Other comprehensive income, net of tax		**148,726**	(117,552)
Total comprehensive income		**14,154,919**	8,651,857

The notes on pages 132 to 337 are an integral part of these consolidated financial statements.

CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

FOR THE YEAR ENDED 31 DECEMBER 2024

(Prepared in accordance with IFRS Accounting Standards)

(Amounts expressed in thousands of RMB, except per share data)

	Notes	For the year ended 31 December 2024	2023
Net profit attributable to:			
– Equity holders of the Company		**10,184,633**	8,357,460
– Non-controlling interests		**3,821,560**	411,949
		14,006,193	8,769,409
Total comprehensive income attributable to:			
– Equity holders of the Company		**10,233,398**	8,653,954
– Non-controlling interests		**3,921,521**	(2,097)
		14,154,919	8,651,857
Earnings per share attributable to the shareholders of the Company (expressed in RMB per share)			
– Basic and diluted	34	**0.46**	0.35

The notes on pages 132 to 337 are an integral part of these consolidated financial statements.

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

As at 31 December 2024
(Prepared in accordance with IFRS Accounting Standards)
(Amounts expressed in thousands of RMB)

	Notes	As at 31 December 2024	2023
ASSETS			
Non-current assets			
Property, plant and equipment	7	**402,936,461**	368,675,819
Right-of-use assets	41	**24,682,142**	21,024,661
Investments in associates and joint ventures	8	**24,672,883**	22,712,467
Investment properties		**591,512**	626,239
Other equity instrument investments	10	**589,920**	642,923
Power generation licence	11	**4,267,763**	4,312,514
Mining rights	12	**1,609,115**	1,609,115
Deferred income tax assets	31	**3,155,100**	4,150,104
Derivative financial assets	13	**38,105**	616
Goodwill	14	**14,389,046**	14,509,739
Other non-current assets	15	**22,345,178**	21,307,658
Total non-current assets		**499,277,225**	459,571,855
Current assets			
Inventories	16	**13,444,394**	11,899,339
Other receivables and assets	17	**14,546,074**	14,750,293
Accounts and notes receivables	18	**48,073,224**	47,140,674
Contract assets	5(c)	**47,863**	44,583
Derivative financial assets	13	**256,065**	59,411
Bank balances and cash	35	**19,932,035**	16,849,858
Total current assets		**96,299,655**	90,744,158
Total assets		**595,576,880**	550,316,013

The notes on pages 132 to 337 are an integral part of these consolidated financial statements.

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

FOR THE YEAR ENDED 31 DECEMBER 2024
(Prepared in accordance with IFRS Accounting Standards)
(Amounts expressed in thousands of RMB)

	Notes	As at 31 December 2024	2023
EQUITY AND LIABILITIES			
Equity attributable to equity holders of the Company			
Share capital	20	**15,698,093**	15,698,093
Other equity instruments	21	**80,170,696**	79,626,169
Capital surplus		**23,710,857**	23,571,376
Surplus reserves	22	**8,140,030**	8,140,030
Reserve funds		**771,124**	479,264
Currency translation differences		**(457,669)**	(366,687)
Retained earnings		**15,761,198**	11,614,870
		143,794,329	138,763,115
Non-controlling interests	40	**66,784,717**	40,591,363
Total equity		**210,579,046**	179,354,478
Non-current liabilities			
Long-term loans	24	**151,827,548**	162,347,839
Long-term bonds	25	**37,248,235**	28,038,374
Lease liabilities	41	**7,429,666**	6,714,600
Deferred income tax liabilities	31	**3,010,015**	2,593,143
Derivative financial liabilities	13	**271,621**	454,637
Other non-current liabilities	26	**6,472,682**	6,813,588
Total non-current liabilities		**206,259,767**	206,962,181

The notes on pages 132 to 337 are an integral part of these consolidated financial statements.

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

FOR THE YEAR ENDED 31 DECEMBER 2024

(Prepared in accordance with IFRS Accounting Standards)
(Amounts expressed in thousands of RMB)

	Notes	As at 31 December 2024	2023
EQUITY AND LIABILITIES (Continued)			
Current liabilities			
Accounts payable and other liabilities	27	**62,033,482**	59,851,144
Contract liabilities	5(c)	**3,528,664**	3,380,245
Taxes payable	28	**2,235,283**	2,363,028
Dividends payable		**428,446**	554,684
Derivative financial liabilities	13	**176,614**	240,177
Short-term bonds	29	**8,017,110**	6,110,228
Short-term loans	30	**61,165,908**	57,232,729
Current portion of long-term loans	24	**31,950,932**	21,076,582
Current portion of long-term bonds	25	**8,447,643**	11,829,844
Current portion of lease liabilities	41	**670,924**	1,279,447
Current portion of other non-current liabilities	26	**83,061**	81,246
Total current liabilities		**178,738,067**	163,999,354
Total liabilities		**384,997,834**	370,961,535
Total equity and liabilities		**595,576,880**	550,316,013

These financial statements were approved for issue by the Board of Directors on 25 March 2025 and were signed on its behalf by.

Wang Kui
Director

Huang Lixin
Director

The notes on pages 132 to 337 are an integral part of these consolidated financial statements.

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

For the year ended 31 December 2024
(Prepared in accordance with IFRS Accounting Standards)
(Amounts expressed in thousands of RMB)

	Attributable to equity holders of the Company														
			Capital surplus												
	Share capital	Other equity instruments	Share premium	Hedging reserve	Fair value reserve of financial assets at fair value through other comprehensive income	Other reserve in other comprehensive income	Other capital reserve	Subtotal	Surplus reserves	Reserve funds	Currency translation differences	Retained earnings	Total	Non-controlling interests	Total equity
Balance as at 1 January 2024	15,698,093	79,626,169	24,770,682	(451,936)	281,472	(69,588)	(959,254)	23,571,376	8,140,030	479,264	(366,687)	11,614,870	138,763,115	40,591,363	179,354,478
Profit for the year	-	2,924,430	-	-	-	-	-	-	-	-	-	7,260,203	10,184,633	3,821,560	14,006,193
Other comprehensive income for the year:															
Fair value changes of other equity investment instruments, net of tax	-	-	-	-	(39,752)	-	-	(39,752)	-	-	-	-	(39,752)	-	(39,752)
Share of other comprehensive income of investees – accounted for under the equity method, net of tax	-	-	-	-	(56,274)	10,530	-	(45,744)	-	-	-	-	(45,744)	-	(45,744)
Changes in fair value of effective portion and reclassification of cash flow hedges, net of tax	-	-	-	225,243	-	-	-	225,243	-	-	-	-	225,243	4,711	229,954
Currency translation differences	-	-	-	-	-	-	-	-	-	-	(90,982)	-	(90,982)	95,250	4,268
Total comprehensive income for the year	-	2,924,430	-	225,243	(96,026)	10,530	-	139,747	-	-	(90,982)	7,260,203	10,233,398	3,921,521	14,154,919
2023 dividends(Note 23)	-	-	-	-	-	-	-	-	-	-	-	(3,139,619)	(3,139,619)	(1,431,679)	(4,571,298)
Issue of other equity instruments (Note 21)	-	2,051,000	-	-	-	-	(13,072)	(13,072)	-	-	-	-	2,037,928	-	2,037,928
Redemption of other equity instruments (Note 21)	-	(1,500,000)	-	-	-	-	-	-	-	-	-	-	(1,500,000)	-	(1,500,000)
Cumulative distribution of other equity instruments (Note 21)	-	(2,930,903)	-	-	-	-	-	-	-	-	-	-	(2,930,903)	(59,833)	(2,990,736)
Net capital injection from non-controlling interests of subsidiaries	-	-	-	-	-	-	(26,399)	(26,399)	-	-	-	-	(26,399)	24,844,909	24,818,510
Acquisition of subsidiaries	-	-	-	-	-	-	-	-	-	-	-	-	-	146,364	146,364
Withdrawal of investment by non-controlling Interests	-	-	-	-	-	-	-	-	-	-	-	-	-	(739,126)	(739,126)
Acquisition of non-controlling interests of subsidiaries	-	-	-	-	-	-	-	-	-	-	-	317,604	317,604	(488,802)	(171,198)
Share of other capital reserve of investees accounted for under the equity method	-	-	-	-	-	-	39,205	39,205	-	-	-	-	39,205	-	39,205
Transfer from retained earnings	-	-	-	-	-	-	-	-	-	291,860	-	(291,860)	-	-	-
Balance as at 31 December 2024	15,698,093	80,170,696	24,770,682	(226,693)	185,446	(59,058)	(959,520)	23,710,857	8,140,030	771,124	(457,669)	15,761,198	143,794,329	66,784,717	210,579,046

The notes on pages 132 to 337 are an integral part of these consolidated financial statements.

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

FOR THE YEAR ENDED 31 DECEMBER 2024

(Prepared in accordance with IFRS Accounting Standards)

(Amounts expressed in thousands of RMB)

	Attributable to equity holders of the Company														
			Capital surplus												
	Share capital	Other equity instruments	Share premium	Hedging reserve	Fair value reserve of financial assets at fair value through other comprehensive income	Other reserve in other comprehensive income	Other capital reserve	Subtotal	Surplus reserves	Reserve funds	Currency translation differences	Retained earnings	Total	Non-controlling interests	Total equity
Balance as at 1 January 2023	15,698,093	62,083,704	24,770,682	(570,194)	368,078	(81,735)	(776,145)	23,710,686	8,140,030	117,308	(602,823)	6,517,524	115,664,522	19,651,537	135,316,059
Profit for the year	-	2,916,280	-	-	-	-	-	-	-	-	-	5,441,180	8,357,460	411,949	8,769,409
Other comprehensive income for the year:															
Fair value changes of other equity investment instruments, net of tax	-	-	-	-	(40,522)	-	-	(40,522)	-	-	-	-	(40,522)	-	(40,522)
Share of other comprehensive income of investees – accounted for under the equity method, net of tax	-	-	-	-	(29,525)	12,147	-	(17,378)	-	-	-	-	(17,378)	-	(17,378)
Changes in fair value of effective portion and reclassification of cash flow hedges, net of tax	-	-	-	118,258	-	-	-	118,258	-	-	-	-	118,258	(9,858)	108,400
Currency translation differences	-	-	-	-	-	-	-	-	-	-	236,136	-	236,136	(404,188)	(168,052)
Total comprehensive income for the year	-	2,916,280	-	118,258	(70,047)	12,147	-	60,358	-	-	236,136	5,441,180	8,653,954	(2,097)	8,651,857
2022 dividends	-	-	-	-	-	-	-	-	-	-	-	-	-	(680,385)	(680,385)
Issue of other equity instruments	-	34,000,000	-	-	-	-	(19,876)	(19,876)	-	-	-	-	33,980,124	-	33,980,124
Redemption of other equity instruments	-	(17,000,000)	-	-	-	-	-	-	-	-	-	-	(17,000,000)	-	(17,000,000)
Cumulative distribution of other equity instruments	-	(2,373,815)	-	-	-	-	-	-	-	-	-	-	(2,373,815)	(54,929)	(2,428,744)
Net capital injection from non-controlling interests of subsidiaries	-	-	-	-	-	-	(136,921)	(136,921)	-	-	-	-	(136,921)	21,683,544	21,546,623
Share of other capital reserve of investees accounted for under the equity method	-	-	-	-	-	-	(25,928)	(25,928)	-	-	-	-	(25,928)	-	(25,928)
Acquisition of non-controlling interests of subsidiaries	-	-	-	-	-	-	4,422	4,422	-	-	-	-	4,422	(4,422)	-
Disposal of equity investments at fair value through other comprehensive income	-	-	-	-	(16,559)	-	-	(16,559)	-	-	-	16,559	-	-	-
Transfer from retained earnings	-	-	-	-	-	-	-	-	-	361,956	-	(361,956)	-	-	-
Others	-	-	-	-	-	-	(4,806)	(4,806)	-	-	-	1,563	(3,243)	(1,885)	(5,128)
Balance as at 31 December 2023	15,698,093	79,626,169	24,770,682	(451,936)	281,472	(69,588)	(959,254)	23,571,376	8,140,030	479,264	(366,687)	11,614,870	138,763,115	40,591,363	179,354,478

CONSOLIDATED STATEMENT OF CASH FLOWS

For the year ended 31 December 2024
(Prepared in accordance with IFRS Accounting Standards)
(Amounts expressed in thousands of RMB)

	Notes	For the year ended 31 December 2024	2023
OPERATING ACTIVITIES			
Profit before income tax expense		**17,821,286**	12,477,142
Adjustments to reconcile profit before income tax expense to net cash provided by operating activities:			
Depreciation of property, plant and equipment	6	**25,184,490**	24,679,041
Depreciation of investment property	6	**26,059**	24,541
Depreciation of right-of-use assets	6	**1,091,219**	788,698
Provision for impairment losses on property, plant and equipment	6	**1,610,720**	2,735,886
Provision for impairment of goodwill	6	**–**	295,001
Provision for impairment of other non-current assets	6	**60,344**	65,234
Amortisation of other non-current assets	6	**114,893**	239,480
Recognition of provision for loss allowance for receivables		**20,219**	129,009
Recognition of provision for inventory obsolescence	6	**43,076**	40,781
Other investment gain	6	**(4,647)**	(1,930,412)
Net loss on disposal of non-current assets	6	**594,377**	354,812
Share of profits less losses of associates and joint ventures	8	**(1,259,904)**	(854,156)
Interest income		**(605,919)**	(506,878)
Interest expense	6	**7,786,460**	8,938,084
Others		**672,633**	27,130
Changes in working capital:			
Inventories		**(1,584,719)**	755,677
Other receivables and assets		**1,678,307**	419,206
Accounts and notes receivables		**(875,121)**	(4,490,918)
Contract assets		**(3,280)**	(8,837)
Restricted cash		**63,347**	76,580
Accounts payable and other liabilities		**(3,221,499)**	(1,468,649)
Contract liabilities		**144,986**	31,737
Taxes payable		**3,059,435**	3,435,228
Interest received		**605,919**	506,878
Income tax expense paid		**(2,492,420)**	(1,263,177)
Net cash provided by operating activities		**50,530,261**	45,497,118

The notes on pages 132 to 337 are an integral part of these consolidated financial statements.

CONSOLIDATED STATEMENT OF CASH FLOWS

FOR THE YEAR ENDED 31 DECEMBER 2024

(Prepared in accordance with IFRS Accounting Standards)
(Amounts expressed in thousands of RMB)

	Notes	For the year ended 31 December 2024	2023
INVESTING ACTIVITIES			
Cash dividends and investment gains received		**458,126**	3,253,055
Proceeds from disposal of investments		**129,963**	1,419,761
Proceeds from disposal of property, plant and equipment, land use rights and other non-current assets		**410,754**	162,012
Cash received from acquisition of subsidiaries		**357,042**	–
Payment for the purchase of property, plant and equipment		**(61,783,435)**	(58,682,654)
Capital injections for investments in associates and joint ventures		**(1,263,419)**	(632,028)
Others		**(35,806)**	(49,195)
Net cash used in investing activities		**(61,726,775)**	(54,529,049)

CONSOLIDATED STATEMENT OF CASH FLOWS

FOR THE YEAR ENDED 31 DECEMBER 2024
(Prepared in accordance with IFRS Accounting Standards)
(Amounts expressed in thousands of RMB)

	Notes	For the year ended 31 December 2024	2023
FINANCING ACTIVITIES			
Issuance of short-term bonds		**44,800,000**	65,000,000
Repayments of short-term bonds		**(42,900,000)**	(65,200,000)
Proceeds from short-term loans		**84,175,674**	84,781,704
Repayments of short-term loans		**(80,235,416)**	(111,101,966)
Proceeds from long-term loans		**51,989,801**	70,943,748
Repayments of long-term loans		**(53,078,509)**	(58,692,960)
Issuance of long-term bonds		**16,800,000**	–
Repayments of long-term bonds		**(11,100,000)**	–
Interest paid and distribution to other equity instruments		**(11,176,353)**	(11,657,624)
Net proceeds from the issuance of other equity instruments		**2,037,928**	33,980,124
Redemption of other equity instruments		**(1,500,000)**	(17,000,000)
Net capital injection from non-controlling interests of subsidiaries		**24,858,770**	21,683,544
Dividends paid to shareholders of the Company		**(3,139,619)**	–
Dividends paid to non-controlling interests of subsidiaries		**(1,617,750)**	(798,206)
Withdrawal of investment by non-controlling Interests		**(653,275)**	–
Acquisition of non-controlling interests		**(565,631)**	–
Lease payments		**(4,374,884)**	(3,130,008)
Others		**(707,331)**	(88,822)
Net cash provided by financing activities		**13,613,405**	8,719,534
Effect of foreign exchange rate changes, net		**33,580**	(54,076)
NET INCREASE/(DECREASE) IN CASH AND CASH EQUIVALENTS		**2,450,471**	(366,473)
Cash and cash equivalents as at beginning of the year		**16,150,635**	16,517,108
CASH AND CASH EQUIVALENTS AS AT END OF THE YEAR	35	**18,601,106**	16,150,635

The notes on pages 132 to 337 are an integral part of these consolidated financial statements.

NOTES TO THE FINANCIAL STATEMENTS

FOR THE YEAR ENDED 31 DECEMBER 2024
(Prepared in accordance with IFRS Accounting Standards)
(Amounts expressed in thousands of RMB)

1 COMPANY ORGANISATION AND PRINCIPAL ACTIVITIES

Huaneng Power International, Inc. (the "Company") was established in the People's Republic of China (the "PRC") as a Sino-foreign joint stock limited company on 30 June 1994. The registered address of the Company is Huaneng Building, 6 Fuxingmennei Street, Xicheng District, Beijing, the PRC. The Company and its subsidiaries (collectively, the "Group") are principally engaged in the generation and sale of electric power to the respective regional or provincial grid companies in the PRC, the Republic of Singapore ("Singapore") and the Islamic Republic of Pakistan ("Pakistan"). The Company conducts its business in Singapore through SinoSing Power Pte Ltd. ("SinoSing Power") and its subsidiaries and in Pakistan through Huaneng Shandong Ruyi (Hong Kong) Energy Co., Ltd. ("Hong Kong Energy") and its subsidiaries.

The directors consider Huaneng International Power Development Corporation ("HIPDC") and China Huaneng Group Co., Ltd. ("Huaneng Group") as the controlling shareholders of the Company, with HIPDC being the parent company and Huaneng Group being the ultimate parent company of the Company, respectively. Both HIPDC and Huaneng Group are established in the PRC.

2 MATERIAL ACCOUNTING POLICIES

The material accounting policies adopted in the preparation of these financial statements are set out below. These policies have been consistently applied to all the years presented, unless otherwise stated.

(a) Basis of preparation

These financial statements have been prepared in accordance with IFRS accounting standards as issued by the International Accounting Standards Board (the "IASB") and the disclosure requirements of the Hong Kong Companies Ordinance. These financial statements also comply with the applicable disclosure provisions of the Rules Governing the Listing of Securities on the Stock Exchange of Hong Kong Limited. These financial statements have been prepared under the historical cost convention, except for financial assets at fair value through other comprehensive income, financial assets at fair value through profit or loss and derivative financial assets and liabilities.

As at 31 December 2024, the Group had net current liabilities of approximately RMB82.44 billion. Taking into consideration the unutilised banking facilities exceeding approximately RMB370.0 billion as at 31 December 2024, the Group is expected to refinance certain of its short-term loans and bonds and also to consider alternative sources of financing, where applicable and when needed. Therefore, the directors of the Company are of the opinion that the Group will be able to meet its liabilities as and when they fall due within the next twelve months and accordingly, these consolidated financial statements are prepared on a going concern basis.

NOTES TO THE FINANCIAL STATEMENTS

FOR THE YEAR ENDED 31 DECEMBER 2024
(Prepared in accordance with IFRS Accounting Standards)
(Amounts expressed in thousands of RMB)

2 MATERIAL ACCOUNTING POLICIES (CONTINUED)

(b) Changes in accounting policies

The Group has adopted the following revised IFRS accounting standards for the first time for the current year's consolidated financial statements.

Amendments to IFRS 16	*Lease Liability in a Sale and Leaseback*
Amendments to IAS 1	*Classification of Liabilities as Current or Non-current* (the "2020 Amendments")
Amendments to IAS 1	*Non-current Liabilities with Covenants* (the "2022 Amendments")
Amendments to IAS 7 and IFRS 7	*Supplier Finance Arrangements*

The nature and the impact of the revised IFRS accounting standards that are applicable to the Group are described below:

(i) Amendments to IFRS 16 *Lease Liability in a Sale and Leaseback*

Amendments to IFRS 16 specify the requirements that a seller-lessee uses in measuring the lease liability arising in a sale and leaseback transaction to ensure the seller-lessee does not recognise any amount of the gain or loss that relates to the right of use it retains. Since the Group has no sale and leaseback transactions with variable lease payments that do not depend on an index or a rate occurring from the date of initial application of IFRS 16, the amendments did not have any impact on the financial position or performance of the Group.

(ii) Amendments to IAS 1 the 2020 Amendments and the 2022 Amendments

The 2020 Amendments clarify the requirements for classifying liabilities as current or non-current, including what is meant by a right to defer settlement and that a right to defer must exist at the end of the reporting period. Classification of a liability is unaffected by the likelihood that the entity will exercise its right to defer settlement. The amendments also clarify that a liability can be settled in its own equity instruments, and that only if a conversion option in a convertible liability is itself accounted for as an equity instrument would the terms of a liability not impact its classification. The 2022 Amendments further clarify that, among covenants of a liability arising from a loan arrangement, only those with which an entity must comply on or before the reporting date affect the classification of that liability as current or non-current. Additional disclosures are required for non-current liabilities that are subject to the entity complying with future covenants within 12 months after the reporting period.

The Group has reassessed the terms and conditions of its liabilities as at 1 January 2023 and 2024 and concluded that the classification of its liabilities as current or non-current remained unchanged upon initial application of the amendments. Accordingly, the amendments did not have any impact on the financial position or performance of the Group.

NOTES TO THE FINANCIAL STATEMENTS

FOR THE YEAR ENDED 31 DECEMBER 2024
(Prepared in accordance with IFRS Accounting Standards)
(Amounts expressed in thousands of RMB)

2 MATERIAL ACCOUNTING POLICIES (CONTINUED)

(c) Consolidation

The consolidated financial statements include the financial statements of the Group for the year ended 31 December 2024. A subsidiary is an entity (including a structured entity), directly or indirectly, controlled by the Company. Control is achieved when the Group is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee (i.e., existing rights that give the Group the current ability to direct the relevant activities of the investee).

Generally, there is a presumption that a majority of voting rights results in control. When the Company has less than a majority of the voting or similar rights of an investee, the Group considers all relevant facts and circumstances in assessing whether it has power over an investee, including:

(a) the contractual arrangement with the other vote holders of the investee;

(b) rights arising from other contractual arrangements; and

(c) the Group's voting rights and potential voting rights.

The financial statements of the subsidiaries are prepared for the same reporting period as the Company, using consistent accounting policies. The results of subsidiaries are consolidated from the date on which the Group obtains control, and continue to be consolidated until the date that such control ceases.

Profit or loss and each component of other comprehensive income are attributed to the owners of the parent of the Group and to the non-controlling interests, even if this results in the non-controlling interests having a deficit balance. All intra-group assets and liabilities, equity, income, expenses and cash flows relating to transactions between members of the Group are eliminated in full on consolidation.

The Group reassesses whether or not it controls an investee if facts and circumstances indicate that there are changes to one or more of the three elements of control described above. A change in the ownership interest of a subsidiary, without a loss of control, is accounted for as an equity transaction.

If the Group loses control over a subsidiary, it derecognises the related assets (including goodwill), liabilities, any non-controlling interest, and the exchange fluctuation reserve; and recognises the fair value of any investment retained and any resulting surplus or deficit in profit or loss. The Group's share of components previously recognised in other comprehensive income is reclassified to profit or loss or retained profits, as appropriate, on the same basis as would be required if the Group had directly disposed of the related assets or liabilities.

2 MATERIAL ACCOUNTING POLICIES (CONTINUED)

(c) Consolidation (Continued)

(i) Business combinations

The acquisition method is used to account for the business combinations of the Group (including business combinations under common controls). The consideration transferred for the acquisition of a subsidiary is the fair values of the assets transferred, the liabilities incurred to the former owners of the acquiree and the equity interests issued by the Group. Any contingent consideration is measured at fair value at the date of acquisition. If an obligation to pay contingent consideration that meets the definition of a financial instrument is classified as equity, then it is not remeasured and settlement is accounted for within equity. Otherwise, other contingent consideration is remeasured at fair value at each reporting date and subsequent changes in the fair value of the contingent consideration are recognised in profit or loss. Acquisition-related costs are expensed as incurred. Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are measured initially at their fair values at the acquisition date. On an acquisition-by-acquisition basis, the Group recognises any non-controlling interests in the acquiree either at fair value or at the non-controlling interest's proportionate share of the recognised amounts of acquiree's identifiable net assets. The excess of the consideration transferred, the amount of any non-controlling interest in the acquiree and the acquisition-date fair value of any previous equity interest in the acquiree over the fair value of the identifiable net assets acquired is recorded as goodwill (Note 2(k)). If this consideration is lower than the fair value of the net assets of the subsidiary acquired, the difference is recognised in profit or loss. In a business combination achieved in stages, the acquirer shall remeasure its previously held equity interest in the acquiree at its acquisition-date fair value and recognise the resulting gain or loss, if any, in profit or loss or other comprehensive income, as appropriate. In prior reporting periods, the acquirer may have recognised changes in the value of its equity interest in the acquiree in other comprehensive income. If so, the amount that was recognised in other comprehensive income shall be recognised on the same basis as would be required if the acquirer had directly disposed of the previously held equity interest.

The Group determines that it has acquired a business when the acquired set of activities and assets includes an input and a substantive process that together significantly contribute to the ability to create outputs. The Group may elect to apply, or not apply, an optional test (the concentration test) to permit a simplified assessment of whether an acquired set of activities and assets is not a business, and the Group makes such an election separately for each transaction or other event. The concentration test is met if substantially all of the fair value of the gross assets acquired is concentrated in a single identifiable asset or group of similar identifiable assets. If the concentration test is met, the set of activities and assets is determined not to be a business and no further assessment is needed. If the concentration test is not met, or if the entity elects not to apply the test, the Group then perform further assessment to determine whether an acquisition meet the minimum requirements to be a business.

When an acquisition does not constitute an integrated set of activities and assets that is capable of being conducted and managed for the purpose of providing goods or services to customers, generating investment income (such as dividends or interest) or generating other income from ordinary activities, it is not defined as a business and therefore is identified as an asset acquisition.

NOTES TO THE FINANCIAL STATEMENTS

FOR THE YEAR ENDED 31 DECEMBER 2024
(Prepared in accordance with IFRS Accounting Standards)
(Amounts expressed in thousands of RMB)

2 MATERIAL ACCOUNTING POLICIES (CONTINUED)

(c) Consolidation (Continued)

(ii) Changes in ownership interests in subsidiaries

Transactions with non-controlling interests that do not result in loss of control are accounted for as equity transactions – that is, as transactions with the equity owners in their capacity as owners. The difference between fair value of any consideration paid and the relevant share acquired of the carrying value of net assets of the subsidiary is recorded in equity. Gains or losses on disposals to non-controlling interests are also recorded in equity.

When the Group loses control of a subsidiary, it is accounted for as a disposal of the entire interest in that subsidiary, with a resulting gain or loss being recognised in profit or loss. Any interest retained in that former subsidiary at the date when control is lost is recognised at fair value and this amount is regarded as the fair value on initial recognition of a financial asset (Note 2(m)) or, when appropriate, the cost on initial recognition of an investment in an associate or joint venture (Note 2(c) (iii)).

(iii) Associates and joint ventures

Associates are investees over which the Group has significant influence on the financial and operating decisions. A joint venture is an arrangement whereby the Group and other parties contractually agree to share control of the arrangement, and have rights to the net assets of the arrangement.

Investments in associates and joint ventures are initially recognised at cost and are subsequently measured using the equity method of accounting, unless it is classified as held for sale (or included in a disposal group that is classified as held for sale). The excess of the initial investment cost over the proportionate share of the fair value of identifiable net assets of investee acquired is included in the initial investment cost (Note 2(k)). Any shortfall of the initial investment cost to the proportionate share of the fair value of identifiable net assets of investee acquired is recognised in the current period profit or loss and long-term investment cost is adjusted accordingly.

When applying the equity method, the Group adjusts net profit or loss of the investees, including the fair value adjustments on the net identifiable assets of the associates and joint ventures and the adjustments to align with the accounting policies of the Company and the Company's financial reporting periods. The current period investment income is then recognised based on the proportionate share of the Group in the investees' net profit or loss. Net losses of investees are recognised to the extent of the carrying value of long-term equity investments and any other constituting long-term equity investments in investees that in substance form part of the investments in the investees. The Group continues to recognise investment losses and provision if they bear additional obligations which meet the recognition criteria.

The Group adjusts the carrying amount of the investment and directly recognises it into related other comprehensive income based on the proportionate share on the movements of the investees' other comprehensive income.

When the investees appropriate profit or declare dividends, the carrying value of long-term equity investments is reduced correspondingly by the proportionate share of the distribution.

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2 MATERIAL ACCOUNTING POLICIES (CONTINUED)

(c) Consolidation (Continued)

(iii) Associates and joint ventures (Continued)

The Group determines at each reporting date whether there is any objective evidence that the investment in the associate or the joint venture is impaired. If this is the case, the Group calculates the amount of impairment as the difference between the recoverable amount of the associate or the joint venture and its carrying value and recognises the amount in the consolidated statement of profit or loss and other comprehensive income.

Profits or losses resulting from transactions between the Group and the associates and joint ventures are recognised in the Group's financial statements only to the extent of the unrelated third party investor's interests in the associates and joint ventures. Loss from transactions between the Group and the associates and joint ventures is fully recognised and not eliminated when there is evidence for asset impairment.

If an investment in an associate becomes an investment in a joint venture or vice versa, retained interest is not remeasured. Instead, the investment continues to be accounted for under the equity method.

Gains and losses arising from dilution of investments in associates and joint ventures are recognised in the consolidated statement of profit or loss and other comprehensive income.

In the Company's statement of financial position, investments in associates and joint ventures are stated at cost less provision for impairment losses (Note 2(l)) unless classified as held for sale (or included in a disposal group that is classified as held for sale). Investment income from investments in associates and joint ventures is accounted for by the Company based on dividends received and receivable.

In all other cases, when the Group ceases to have significant influence over an associate or joint control over a joint venture, it is accounted for as a disposal of the entire interest in that investee, with a resulting gain or loss being recognised in profit or loss. Any interest retained in that former investee at the date when significant influence or joint control is lost is recognised at fair value and this amount is regarded as the fair value on initial recognition of a financial asset (Note 2(m)).

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2 MATERIAL ACCOUNTING POLICIES (CONTINUED)

(d) Separate financial statements of the Company

Investments in subsidiaries are accounted for at cost less impairment unless classified as held for sale (or included in a disposal group that is classified as held for sale). Cost also includes direct attributable costs of investment. Investment income is recognised when the subsidiaries declare dividend.

(e) Segment reporting

The Group determines the operating segment based on the internal organisation structure, management requirement and internal reporting system for purposes of presenting reportable segment information.

An operating segment represents a component of the Group that meets all the conditions below: (i) the component earns revenue and incurs expenses in its daily operating activities; (ii) chief operating decision maker of the Group regularly reviews the operating results of the component in order to make decisions on allocating resources and assessing performance; (iii) the financial position, operating results, cash flows and other related financial information of the component are available. When two or more operating segments exhibit similar economic characteristics and meet certain conditions, the Group combines them as one reportable segment.

(f) Foreign currency translation

(i) Functional and presentation currency

Items included in the financial statements of each of the Group are measured using the currency of the primary economic environment in which the entity operates (the "functional currency"). The consolidated financial statements are presented in Renminbi ("RMB"), which is the Company's functional and presentation currency.

(ii) Transactions and balances

Foreign currency transactions recorded by the entities in the Group are initially recorded using their respective functional currency rates prevailing at the dates of the transactions.

As at the end of reporting period, foreign currency monetary items are translated into functional currency at the spot exchange rate as at the end of reporting period. Exchange differences are directly expensed in current period profit or loss unless they arises from foreign currency loans borrowed for purchasing or construction of qualifying assets which is eligible for capitalisation or they arise from monetary items that qualify as hedging instruments in cash flow hedges which are recorded in other comprehensive income to the extent that the hedge is effective.

2 MATERIAL ACCOUNTING POLICIES (CONTINUED)

(f) Foreign currency translation (Continued)

(iii) Foreign subsidiaries

The operating results and financial position of the foreign subsidiaries are translated into presentation currency as follows:

Asset and liability items in each statement of financial position of foreign operations are translated at the closing rates at the end of reporting period; equity items excluding retained earnings are translated at the spot exchange rates at the date of the transactions. Income and expense items in the statement of comprehensive income of the foreign operations are translated at exchange rates that approximate to those prevailing at the dates of the transactions. All resulting translation differences are recognised in other comprehensive income, except to the extent that the differences are attributable to non-controlling interests.

The cash flows denominated in foreign currencies and cash flows of overseas subsidiaries are translated at average exchange rates approximating the rates at the dates when cash flows incurred. The effect of the foreign currency translation on the cash and cash equivalents is presented in the statement of cash flows separately.

On the disposal of a foreign operation (that is, a disposal of the Group's entire interest in a foreign operation, or a disposal involving loss of control over a subsidiary that includes a foreign operation, a disposal involving loss of joint control over a joint ventures that includes a foreign operation, or a disposal involving loss of significant influence over an associate that includes a foreign operation), all of the exchange differences accumulated in equity in respect of that operation attributable to the equity holders of the Company are reclassified to profit or loss.

In the case of a partial disposal that does not result in the Group losing control over a subsidiary that includes a foreign operation, the proportionate share of accumulated exchange differences is re-attributed to non-controlling interests and are not recognised in profit or loss. For all other partial disposals (that is, reductions in the Group's ownership interest in associates or joint venture that includes a foreign operation that do not result in the Group losing significant influence or joint control), the proportionate share of the accumulated exchange differences is reclassified to profit or loss.

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2 MATERIAL ACCOUNTING POLICIES (CONTINUED)

(g) Property, plant and equipment

Property, plant and equipment consists of dams, port facilities, buildings, electric utility plant in service, transportation facilities, others and construction-in-progress ("CIP"). Property, plant and equipment acquired or constructed are initially recognised at cost and carried at the net value of cost less accumulated depreciation and accumulated impairment loss, unless classified as held for sale (or included in a disposal group that is classified as held for sale).

CIP is stated at cost less any impairment losses, and is not depreciated. It is reclassified to the appropriate category of property, plant and equipment when completed and ready for use.

Subsequent costs about property, plant and equipment are included in the asset's carrying amount only when it is probable that future economic benefits associated with the item will flow to the Group and the cost of the item can be measured reliably. The carrying amount of the replaced part is derecognised. Other subsequent expenditures not qualified for capitalisation are charged in the current period profit or loss when they are incurred.

Depreciation of property, plant and equipment is provided based on book value of the asset less estimated residual value over the estimated useful life using straight-line method. For those impaired property, plant and equipment, depreciation is provided based on book value after deducting impairment provision over the estimated useful life of the asset. The estimated useful lives are as follows:

	Estimated useful lives
Dams	8 – 50 years
Port facilities	20 – 40 years
Buildings	8 – 30 years
Electric utility plant in service	5 – 30 years
Transportation facilities	8 – 27 years
Others	5 – 14 years

2 MATERIAL ACCOUNTING POLICIES (CONTINUED)

(g) Property, plant and equipment (Continued)

Where parts of an item of property, plant and equipment have different useful lives, the cost of the item is allocated on a reasonable basis between the parts and each part is depreciated separately. At the end of each year, the Group reviews the estimated useful lives, residual values and the depreciation method of the property, plant and equipment and make adjustment when necessary. When reviewing the residual values and expected useful lives of assets, the Group considers climate-related matters, such as climate-related legislation and regulations that may restrict the use of assets or require significant capital expenditures.

Property, plant and equipment is derecognised when it is disposed of, or is not expected to bring economic benefit through use or disposal. The amount of disposal proceeds arising from sale, transfer, disposal or write-off of the property, plant and equipment less book value and related tax expenses is recorded in 'operating expenses – others' in the statement of comprehensive income.

The carrying amount of property, plant and equipment is written down immediately to their recoverable amount when their carrying amount is greater than their recoverable amount (Note 2(l)).

(h) Investment property

Investment properties are land and/or buildings which are owned or held under a leasehold interest (Note 2(ac)), including the leasehold property held as a right-of-use asset to earn rental income and/or for capital appreciation. These include land held for a currently undetermined future use and property that is being constructed or developed for future use as investment property.

Investment properties are stated at cost. Depreciation of investment properties is provided based on book value of the asset less estimated residual value over the estimated useful life using straight-line method. For those impaired investment properties, depreciation is provided based on book value after deducting impairment provision over the estimated useful life of the asset. The estimated useful lives are as follows:

	Estimated useful lives
Land use rights	40 – 50 years
Buildings	8 – 30 years

Rental income from investment properties is accounted for as described in Note 2(aa).

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2 MATERIAL ACCOUNTING POLICIES (CONTINUED)

(i) Power generation licence

The Group acquired the power generation licence as part of the business combination with Tuas Power. The power generation licence is initially recognised at fair value at the acquisition date. The licence has an indefinite useful life and is not amortised. The assessment that the licence has an indefinite useful life is based on the expected renewal of power generation licence without significant restriction and cost, together with the consideration on related future cash flows generated and the expectation of continuous operations. It is tested annually for impairment and carried at cost less accumulated impairment loss. The useful life of the power generation licence is reviewed by the Group each financial period to determine whether events and circumstances continue to support the indefinite useful life assessment.

(j) Mining rights

Mining rights are stated at cost less accumulated amortisation and impairment losses (note 2(l)) and are amortised based on the units of production method over estimated proved and probable reserves of the mines, unless the mining rights are classified as held for sale (or included in a disposal group that is classified as held for sale).

(k) Goodwill

After initial recognition, goodwill is measured at cost less accumulated impairment losses. Goodwill arising on a business combination is allocated to each cash-generating unit, or groups of cash generating units, that is expected to benefit from the synergies of the combination and is tested for impairment annually or more frequent if events or changes in circumstances indicate that the carrying value may be impaired (Note 2(l)).

On disposal of a cash-generating unit ("CGU") during the year, any attributable amount of purchased goodwill is included in the calculation of the profit or loss on disposal.

2 MATERIAL ACCOUNTING POLICIES (CONTINUED)

(l) Impairment of non-financial assets

The carrying amounts of property, plant and equipment, mining rights, intangible assets, right-of-use assets with definite useful lives and long-term equity investments not accounted for as financial assets are reviewed at each reporting date to determine whether there is any indication of impairment. If any such indication exists, then the asset's recoverable amount is estimated. Goodwill, indefinite life intangible assets and intangible assets not yet available for use are tested for impairment annually regardless of whether there are indications of impairment or more frequently if events or changes in circumstances indicate a potential impairment. An impairment loss is recognised if the carrying amount of an asset or CGU exceeds its recoverable amount.

The recoverable amount of an asset or CGU is the greater of its value in use and its fair value less cost to sell. For impairment testing, assets are grouped together into the smallest group of assets that generates cash inflows from continuing use that are largely independent of the cash inflows of other assets or CGUs. In testing a CGU for impairment, a portion of the carrying amount of a corporate asset (e.g., a headquarters building) is allocated to an individual CGU if it can be allocated on a reasonable and consistent basis or, otherwise, to the smallest group of CGUs.

Subject to an operating segment ceiling test, CGUs to which goodwill has been allocated are aggregated so that the level at which impairment testing is performed reflects the lowest level at which goodwill is monitored for internal reporting purposes.

Goodwill acquired in a business combination is allocated to groups of CGUs that are expected to benefit from the synergies of the combination.

Impairment losses are recognised in profit or loss. Impairment losses recognised in respect of CGUs are allocated first to reduce the carrying amount of any goodwill allocated to the CGU (group of CGUs), and then to reduce the carrying amounts of the other assets in the CGU (group of CGUs) on a pro rata basis, except that the carrying value of an asset will not be reduced below its individual fair value less costs of disposal (if measurable) or value in use (if determinable).

An impairment loss in respect of goodwill is not reversed. Except for goodwill, all impaired non-financial assets are subject to review for possible reversal of impairment at each reporting date. A reversal of an impairment loss is limited to the asset's carrying amount that would have been determined had no impairment loss been recognised in prior years. Reversals of impairment losses are credited to profit or loss in the year in which the reversals are recognised.

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2 MATERIAL ACCOUNTING POLICIES (CONTINUED)

(m) Financial instruments

(i) Recognition and initial measurement

All financial assets and financial liabilities are initially recognised when the Group becomes a party to the contractual provisions of the instrument.

A financial asset (unless it is a receivable without a significant financing component) or financial liability is initially measured at fair value plus, for an item not at FVTPL, transaction costs that are directly attributable to its acquisition or issue. A receivable without a significant financing component is initially measured at the transaction price.

(ii) Classification and subsequent measurement of financial assets

(1) Classification of financial assets

On initial recognition, the Group categorises financial assets into three principal classification categories: measured at amortised cost, at fair value through other comprehensive income (FVOCI) and at fair value through profit or loss (FVTPL) based on the business model under which the financial asset is managed and its contractual cash flow characteristics.

Financial assets are not reclassified subsequent to their initial recognition unless the Group changes its business model for managing financial assets, in which case all affected financial assets are reclassified on the first day of the first reporting period following the change in the business model.

An entity's business model refers to how an entity manages its financial assets in order to generate cash flows. The entity's business model determines whether cash flows will result from collecting contractual cash flows, selling financial assets or both. The Group determines the business model for managing the financial assets according to the facts and based on the specific business objective determined by the Group's key management personnel.

On initial recognition of an equity investment that is not held for trading, the Group may make an irrevocable election to designate the investment at FVOCI (non-recycling) such that subsequent changes in fair value are recognised in other comprehensive income. Such elections are made on an instrument-by-instrument basis, but may only be made if the investment meets the definition of equity from the issuer's perspective.

2 MATERIAL ACCOUNTING POLICIES (CONTINUED)

(m) Financial instruments (Continued)

(ii) Classification and subsequent measurement of financial assets (Continued)

(1) Classification of financial assets (Continued)

The Group assesses the contractual cash flow characteristics of an financial asset whether contractual cash flows are solely payments of principal and interest ("SPPI"). Principal is defined as the fair value of the financial asset on initial recognition. Interest is defined as consideration for the time value of money and for the credit risk associated with the principal amount outstanding during a particular period of time and for other basic lending risks and costs, as well as a profit margin. The Group assesses whether the financial assets contain a contractual term that could change the timing or amount of contractual cash flows such that it would not meet this condition. Financial assets with cash flows that are SPPI are classified and measured at amortised cost.

All financial assets not classified as measured at amortised cost or FVOCI as described in the above are measured at FVTPL. On initial recognition, the Group may irrevocably designate a financial asset that otherwise meets the requirements to be measured at amortised cost or at FVOCI or at FVTPL if doing so eliminates or significantly reduces an accounting mismatch that would otherwise arise.

(2) Subsequent measurement of financial assets

– Financial assets at FVTPL

These assets are subsequently measured at fair value. Net gains and losses, including any interest or dividend income, are recognised in profit or loss, unless the financial assets are part of a hedging relationship.

– Financial assets at amortised cost

These assets are subsequently measured at amortised cost using the effective interest method. A gain or loss on a financial asset that is measured at amortised cost and is not part of a hedging relationship shall be recognised in profit or loss when the financial asset is derecognised, through the amortisation process or in order to recognise impairment gains or losses.

– Debt investments at FVOCI

These assets are subsequently measured at fair value. Interest income calculated using the effective interest method, impairment and foreign exchange gains and losses are recognised in profit or loss. Other net gains and losses are recognised in other comprehensive income. On derecognition, gains and losses accumulated in other comprehensive income are reclassified to profit or loss.

– Equity investments at FVOCI

These assets are subsequently measured at fair value. Dividends are recognised as income in profit or loss. Other net gains and losses are recognised in other comprehensive income and are transferred to retained earnings on derecognition.

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2 MATERIAL ACCOUNTING POLICIES (CONTINUED)

(m) Financial instruments (Continued)

(iii) Classification and subsequent measurement of financial liabilities

Financial liabilities are classified as measured at FVTPL or measured at amortised cost.

– Financial liabilities at FVTPL

A financial liability is classified as at FVTPL if it is classified as held-for-trading (including derivative financial liability) or it is designated as such on initial recognition.

These liabilities are subsequently measured at fair value and net gains and losses, including any interest expense, are recognised in profit or loss, unless the financial liabilities are part of a hedging relationship.

– Financial liabilities at amortised cost

These liabilities are subsequently measured at amortised cost using the effective interest method.

(iv) Offsetting

Financial assets and financial liabilities are separately presented in the statement of financial position without offsetting. However, financial assets and financial liabilities are offset when, and only when the Group:

– currently has a legally enforceable right to set off the amounts;

– intends either to settle them on a net basis or to realise the asset and settle the liability simultaneously.

2 MATERIAL ACCOUNTING POLICIES (CONTINUED)

(m) Financial instruments (Continued)

(v) Derecognition

The Group derecognises a financial asset when one of the following conditions is met:

– the contractual rights to the cash flows from the financial asset expire;

– the Group transfers the rights to receive the contractual cash flows in a transaction in which substantially all of the risks and rewards of ownership of the financial asset are transferred; and

– the Group transfers the rights to receive the contractual cash flows in a transaction in which the Group neither transfers nor retains substantially all of the risks and rewards of ownership and does not retain control of the financial asset.

On derecognition of a financial asset in its entirety, the difference between the two amounts below is recognised in profit or loss:

– the carrying amount of the financial asset transferred (measured at the date of derecognition); and

– the consideration received, along with the cumulative gain or loss previously recognised in other comprehensive income, for the part derecognised.

The Group derecognises a financial liability (or part of it) when, and only when, its contractual obligation (or part of it) is discharged or cancelled, or expire.

Continuing involvement that takes the form of a guarantee over the transferred asset is measured at the lower of the original carrying amount of the asset and the maximum amount of consideration that the Group could be required to repay.

(vi) Credit losses

The Group recognises loss allowance for expected credit losses ("ECLs") on the following items:

– financial assets measured at amortised cost;

– contract assets as defined in IFRS 15;

– lease receivables; and

– debt investments measured at FVOCI.

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2 MATERIAL ACCOUNTING POLICIES (CONTINUED)

(m) Financial instruments (Continued)

(vi) Credit losses (Continued)

Financial assets measured at fair value, including debt investments or equity investments measured at FVTPL, other equity investments designated at FVOCI (non-recycling) and derivative financial assets, are not subject to the ECL assessment.

Measurement of ECLs

ECLs are a probability-weighted estimate of credit losses. Credit losses are measured as the present value of all expected cash shortfalls (i.e. the difference between the cash flows due to the Group in accordance with the contract and the cash flows that the Group expects to receive).

The maximum period considered when estimating ECLs is the maximum contractual period over which the Group is exposed to credit risk.

In measuring ECLs, the Group takes into account reasonable and supportable information that is available without undue cost or effort. This includes information about past events, current conditions and forecasts of future economic conditions.

ECLs are measured on either of the following bases:

– 12-month ECLs: these are losses that are expected to result from possible default events within the 12 months after the reporting date; and

– lifetime ECLs: these are losses that are expected to result from all possible default events over the expected lives of the items to which the ECL model applies.

Loss allowances for accounts receivable, lease receivables and contract assets are always measured at an amount equal to lifetime ECLs. ECLs on these financial assets are estimated using a provision matrix based on the Group's historical credit loss experience, adjusted for factors that are specific to the debtors and an assessment of both the current and forecast general economic conditions at the reporting date.

For all other financial instruments, the Group recognises a loss allowance equal to 12-month ECLs unless there has been a significant increase in credit risk of the financial instrument since initial recognition or the financial instrument is not determined to have low credit risk at the reporting date, in which cases the loss allowance is measured at an amount equal to lifetime ECLs.

2 MATERIAL ACCOUNTING POLICIES (CONTINUED)

(m) Financial instruments (Continued)

(vi) Credit losses (Continued)

Low credit risk

If the financial instrument has a low risk of default, the borrower has a strong capacity to meet its contractual cash flow obligations in the near term and adverse changes in economic and business conditions in the longer term may, but will not necessarily, reduce the ability of the borrower to fulfil its contractual cash flow obligations, the credit risk on a financial instrument is considered low.

Significant increases in credit risk

In assessing whether the credit risk of a financial instrument has increased significantly since initial recognition, the Group compares the risk of default occurring on the financial instrument assessed at the reporting date with that assessed at the date of initial recognition. The Group considers both quantitative and qualitative information that is reasonable and supportable, including historical experience and forward-looking information that is available without undue cost or effort.

In particular, the following information is taken into account when assessing whether credit risk has increased significantly since initial recognition:

– failure to make payments of principal or interest on their contractually due dates;

– an actual or expected significant deterioration in a financial instrument's external or internal credit rating (if available);

– an actual or expected significant deterioration in the operating results of the debtor; and

– existing or forecast changes in the technological, market, economic or legal environment that have a significant adverse effect on the debtor's ability to meet its obligation to the Group.

Depending on the nature of the financial instruments, the assessment of a significant increase in credit risk is performed on either an individual basis or a collective basis. When the assessment is performed on a collective basis, the financial instruments are grouped based on shared credit risk characteristics, such as past due status and credit risk ratings.

The Group assumes that the credit risk on a financial asset has increased significantly if it is more than 30 days past due, unless the Group has reasonable and supportable information that is available without undue cost or effort, that demonstrates that the credit risk has not increased significantly since initial recognition even though the contractual payments are more than 30 days past due.

The Group considers a financial asset to be in default when the borrower is unlikely to pay its credit obligations to the Group in full, without recourse by the Group to actions such as realising security (if any is held).

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2 MATERIAL ACCOUNTING POLICIES (CONTINUED)

(m) Financial instruments (Continued)

(vi) Credit losses (Continued)

Credit-impaired financial assets

At each reporting date, the Group assesses whether financial assets carried at amortised cost and debt investments at FVOCI are credit-impaired. A financial asset is credit-impaired when one or more events that have a detrimental impact on the estimated future cash flows of the financial asset have occurred.

Evidence that a financial asset is credit-impaired includes the following observable events:

– significant financial difficulties of the debtor;

– a breach of contract, such as a default or delinquency in interest or principal payments;

– for economic or contractual reasons relating to the borrower's financial difficulty, the Group having granted to the borrower a concession that would not otherwise consider;

– it becoming probable that the borrower will enter into bankruptcy or other financial reorganisation; and

– the disappearance of an active market for that financial asset because of financial difficulties of the issuer.

Presentation of allowance for ECLs

ECLs are remeasured at each reporting date to reflect changes in the financial instrument's credit risk since initial recognition. Any change in the ECL amount is recognised as an impairment gain or loss in profit or loss.

The Group recognises an impairment gain or loss for all financial instruments with a corresponding adjustment to their carrying amount through a loss allowance account, except for debt investments that are measured at FVOCI (recycling), for which the loss allowance is recognised in other comprehensive income.

Write-off policy

The gross carrying amount of a financial asset is written off (either partially or in full) to the extent that there is no realistic prospect of recovery. A write-off constitutes a derecognition event. This is generally the case when the Group determines that the debtor does not have assets or sources of income that could generate sufficient cash flows to repay the amounts subject to the write-off. However, financial assets that are written off could still be subject to enforcement activities in order to comply with the Group's procedures for recovery of amounts due.

Subsequent recoveries of an asset that was previously written off are recognised as a reversal of impairment in profit or loss in the period in which the recovery occurs.

2 MATERIAL ACCOUNTING POLICIES (CONTINUED)

(m) Financial instruments (Continued)

(vii) Cash flow hedge

Cash flow hedge is a hedge of the exposure to variability in cash flows that is attributable to a particular risk associated with all, or a component of, a recognised asset or liability or a highly probable forecast transaction, and could affect profit or loss.

The hedged items of cash flow hedge are the designated items with respect to the risks associated with future cash flow changes, and can be reliably measurable. Hedging instruments are designated financial instruments for cash flow hedge whose cash flows are expected to offset changes in the cash flows of a hedged item.

When designating a hedging relationship and on an ongoing basis, the Group shall analyse the sources of hedge ineffectiveness that are expected to affect the hedging relationship during its term. If a hedging relationship ceases to meet the hedging effectiveness requirement relating to the hedge ratio, but the risk management objective for that designated hedging relationship remains the same, the Group shall adjust the hedge ratio of the hedging relationship, so that it meets the qualifying criteria again, which is referred to as rebalancing.

When a derivative is designated as a cash flow hedging instrument, the effective portion of changes in the fair value of the derivative is recognised in other comprehensive income and accumulated in the cash flow hedge reserve. The cash flow hedge reserve is adjusted to the lower of the following:

– the cumulative gain or loss on the hedging instrument from inception of the hedge; and

– the present value of the cumulative change in the hedged expected future cash flows from inception of the hedge.

The portion of the gain or loss on the hedging instrument that is determined to be an effective hedge shall be recognised in other comprehensive income. Any remaining gain or loss on the hedging instrument is hedge ineffectiveness that shall be recognised in profit or loss.

On rebalancing, the hedge ineffectiveness of the hedging relationship is determined and recognised immediately before adjusting the hedging relationship. Adjusting the hedge ratio allows an entity to respond to changes in the relationship between the hedging instrument and the hedged item that arise from their underlying or risk variables. The Group adjusts the hedge ratio by increasing the volume of the hedged items or hedging instruments. Hence, increases in volumes refer to the quantities that are part of the hedging relationship, and decreases in volumes are not part of the hedging relationship.

The amount accumulated in the hedging reserve and the cost of hedging reserve is reclassified to profit or loss in the same period or periods during which the hedged expected future cash flows affect profit or loss.

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2 MATERIAL ACCOUNTING POLICIES (CONTINUED)

(m) Financial instruments (Continued)

(vii) Cash flow hedge (Continued)

When the hedged forecast transaction subsequently results in the recognition of a non-financial item, the amount accumulated in the hedging reserve and the cost of hedging reserve is included directly in the initial cost of the non-financial item when it is recognised.

If the amount that has been accumulated in the cash flow hedge reserve is a loss and the Group expects that all or a portion of that loss will not be recovered in one or more future periods, the Group immediately reclassifies the amount that is not expected to be recovered in profit or loss.

When the Group discontinues hedge accounting for a cash flow hedge, the Group accounts for the amount that has been accumulated in the cash flow hedge reserve as follows:

– if the hedged future cash flows are still expected to occur, that amount shall remain in the cash flow hedge reserve until the future cash flows occur;

– if the hedged future cash flows are no longer expected to occur, that amount shall be immediately reclassified from the cash flow hedge reserve to profit or loss. A hedged future cash flow that is no longer highly probable to occur may still be expected to occur.

When the future cash flows occur, the amounts accumulated in the hedging reserve of the effective portion are reclassified to profit or loss or included directly in the initial cost of the non-financial item. If the hedged future cash flows are no longer expected to occur, then the amounts that have been accumulated in the hedging reserve and the cost of hedging reserve are immediately reclassified to profit or loss.

(n) Dividend distribution

Final dividends are recognised as a liability when they are approved by the shareholders in a general meeting. Proposed final dividends are disclosed in the notes to the financial statements. Interim dividends are simultaneously proposed and declared, because the Company's memorandum and articles of association grant the directors the authority to declare interim dividends. Consequently, interim dividends are recognised immediately as a liability when they are proposed and declared.

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2 MATERIAL ACCOUNTING POLICIES (CONTINUED)

(o) Inventories

Inventories include fuel for power generation, materials for repairs and maintenance and spare parts, and are stated at lower of cost and net realisable values.

Inventories are initially recorded at cost and are charged to fuel costs or repairs and maintenance, respectively when used, or capitalized to property, plant and equipment when installed, as appropriate, using weighted average cost basis. Cost of inventories includes costs of purchase and transportation costs.

When the forecast transaction that is hedged results in the recognition of the inventory, the gains and losses previously deferred in equity are transferred from equity and included in the initial measurement of the cost of the inventory.

Provision for inventory obsolescence is determined by the excess of cost over net realisable value. Net realisable values are determined based on the estimated selling price less estimated conversion costs during power generation, selling expenses and related taxes in the ordinary course of business.

(p) Related parties

A party is considered to be related to the Group if:

(a) the party is a person or a close member of that person's family and that person

(i) has control or joint control over the Group;

(ii) has significant influence over the Group; or

(iii) is a member of the key management personnel of the Group or of a parent of the Group;

or

(b) the party is an entity where any of the following conditions applies:

(i) the entity and the Group are members of the same group;

(ii) one entity is an associate or joint venture of the other entity (or of a parent, subsidiary or fellow subsidiary of the other entity);

(iii) the entity and the Group are joint ventures of the same third party;

(iv) one entity is a joint venture of a third entity and the other entity is an associate of the third entity;

(v) the entity is a post-employment benefit plan for the benefit of employees of either the Group or an entity related to the Group;

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2 MATERIAL ACCOUNTING POLICIES (CONTINUED)

(p) Related parties (Continued)

A party is considered to be related to the Group if: (Continued)

(b) the party is an entity where any of the following conditions applies: (Continued)

(vi) the entity is controlled or jointly controlled by a person identified in (a);

(vii) a person identified in (a) (i) has significant influence over the entity or is a member of the key management personnel of the entity (or of a parent of the entity); and

(viii) the entity, or any member of a group of which it is a part, provides key management personnel services to the Group or to the parent of the Group.

(q) Cash and cash equivalents

Cash and cash equivalents in the statement of financial position comprise cash on hand and at banks, and short-term highly liquid deposits with a maturity of generally within three months that are readily convertible into known amounts of cash, subject to an insignificant risk of changes in value and held for the purpose of meeting short-term cash commitments.

For the purpose of the consolidated statement of cash flows, cash and cash equivalents comprise cash on hand and at banks, and short-term deposits as defined above, less bank overdrafts which are repayable on demand and form an integral part of the Group's cash management.

(r) Provisions

A provision is recognised when a present obligation (legal or constructive) has arisen as a result of a past event and it is probable that a future outflow of resources will be required to settle the obligation, provided that a reliable estimate can be made of the amount of the obligation.

When the Group expects some or all of a provision to be reimbursed, the reimbursement is recognised as a separate asset, but only when the reimbursement is virtually certain. The expense relating to a provision is presented in the statement of profit or loss and other comprehensive income net of any reimbursement.

When the effect of discounting is material, the amount recognised for a provision is the present value at the end of the reporting period of the future expenditures expected to be required to settle the obligation. The increase in the discounted present value amount arising from the passage of time is included in finance expenses in the statement of profit or loss and other comprehensive income.

2 MATERIAL ACCOUNTING POLICIES (CONTINUED)

(s) Borrowings

Borrowings are recognised initially at fair value less transaction costs and subsequently measured at amortised cost using the effective interest method. Borrowings are classified as current liabilities unless the Group has an unconditional right to defer settlement of the liability for at least 12 months after the end of the reporting period.

(t) Borrowing costs

General and specific borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, which are assets that necessarily take a substantial period of time to get ready for their intended use or sale, are added to the cost of those assets. The capitalisation of borrowing costs as part of the cost of a qualifying asset commences when expenditure for the asset is being incurred, borrowing costs are being incurred and activities that are necessary to prepare the asset for its intended use or sale are in progress. Capitalisation of borrowing costs ceases when substantially all the activities necessary to prepare the qualifying asset for its intended use or sale complete.

The amount of specific borrowing costs capitalised is net of the investment income on any temporary investment of the funds pending expenditure on the asset.

All other borrowing costs are recognised in profit or loss in the period in which they are incurred.

(u) Share capital

Ordinary shares are classified as equity. Incremental costs directly attributable to the issue of new shares are shown in equity as a deduction, net of tax, from the proceeds.

(v) Other equity instruments

Perpetual corporate bonds and other equity instruments are classified as equity if they are non-redeemable, or redeemable only at the Company's option, and any interests or dividends are discretionary. Interests or dividends on such instruments classified as equity are recognised as distributions within equity. When these equity instruments are redeemed according to the contractual terms, the redemption price is charged to equity.

(w) Payables

Payables primarily include accounts payable and other liabilities, and are recognised initially at fair value and subsequently measured at amortised cost using the effective interest method.

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2 MATERIAL ACCOUNTING POLICIES (CONTINUED)

(x) Taxation

(i) Value-added tax ("VAT")

The domestic sales of power, heat and goods of the Group are subject to VAT. VAT payable is determined by applying 13%, 9% and 6% on the taxable revenue after offsetting deductible input VAT of the period.

(ii) Goods and service tax ("GST")

The power sales of the subsidiaries in Singapore are subject to goods and service tax of the country where they operate. GST payable is determined by applying 9% on the taxable revenue after offsetting deductible GST of the period.

The subsidiaries in Pakistan are subject to goods and service tax of the country where they operate. The applicable tax rates in respect of capacity payment, operation and maintenance services and sales of power are 0%, 16% and 18% respectively on the taxable revenue.

(iii) Current and deferred income tax

Income tax comprises current and deferred tax. Income tax relating to items recognised outside profit or loss is recognised outside profit or loss, either in other comprehensive income or directly in equity.

Current tax assets and liabilities are measured at the amount expected to be recovered from or paid to the taxation authorities, based on tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period, taking into consideration interpretations and practices prevailing in the countries in which the Group operates.

Deferred tax is provided, using the liability method, on all temporary differences at the end of the reporting period between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes, except that deferred tax is not recognised for the Pillar Two income taxes.

Deferred tax liabilities are recognised for all taxable temporary differences, except:

(1) when the deferred tax liability arises from the initial recognition of goodwill or an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss and does not give rise to equal taxable and deductible temporary differences; and

(2) in respect of taxable temporary differences associated with investments in subsidiaries, associates and joint ventures, when the timing of the reversal of the temporary differences can be controlled and it is probable that the temporary differences will not reverse in the foreseeable future.

2 MATERIAL ACCOUNTING POLICIES (CONTINUED)

(x) Taxation (Continued)

(iii) Current and deferred income tax (Continued)

Deferred tax assets are recognised for all deductible temporary differences, and the carryforward of unused tax credits and any unused tax losses. Deferred tax assets are recognised to the extent that it is probable that taxable profit will be available against which the deductible temporary differences, and the carryforward of unused tax credits and unused tax losses can be utilised, except:

(1) when the deferred tax asset relating to the deductible temporary differences arises from the initial recognition of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss and does not give rise to equal taxable and deductible temporary differences; and

(2) in respect of deductible temporary differences associated with investments in subsidiaries, associates and joint ventures, deferred tax assets are only recognised to the extent that it is probable that the temporary differences will reverse in the foreseeable future and taxable profit will be available against which the temporary differences can be utilised.

The carrying amount of deferred tax assets is reviewed at the end of each reporting period and reduced to the extent that it is no longer probable that sufficient taxable profit will be available to allow all or part of the deferred tax asset to be utilised. Unrecognised deferred tax assets are reassessed at the end of each reporting period and are recognised to the extent that it has become probable that sufficient taxable profit will be available to allow all or part of the deferred tax asset to be recovered.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply to the period when the asset is realised or the liability is settled, based on tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period.

Deferred tax assets and deferred tax liabilities are offset if and only if the Group has a legally enforceable right to set off current tax assets and current tax liabilities and the deferred tax assets and deferred tax liabilities relate to income taxes levied by the same taxation authority on either the same taxable entity or different taxable entities which intend either to settle current tax liabilities and assets on a net basis, or to realise the assets and settle the liabilities simultaneously, in each future period in which significant amounts of deferred tax liabilities or assets are expected to be settled or recovered.

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2 MATERIAL ACCOUNTING POLICIES (CONTINUED)

(y) Employee benefits

Employee benefits include all expenditures relating to the employees for their services. The Group recognises employee benefits as liabilities during the accounting period when employees render services and allocate to related cost of assets and expenses based on different beneficiaries.

In connection with pension obligations, the Group operates various defined contribution plans in accordance with the local conditions and practices in the countries and provinces in which it operate. A defined contribution plan is a pension plan under which the Group pays fixed contributions into a separate publicly administered pension insurance plan on mandatory and voluntary bases. The Group has no legal or constructive obligations to pay further contributions if the fund does not hold sufficient assets to pay all employees the benefits relating to employee service in the current and prior periods. The contributions are recognised as employee benefits when incurred. Prepaid contributions are recognised as assets to the extent that a cash refund or a reduction in the future payment is available.

(z) Government grants

Government grants are recognised at their fair value where there is reasonable assurance that the grant will be received and all attaching conditions will be complied with. When government grants are received in the form of monetary assets, they are measured at the amount received or receivable. When the grant is in the form of non-monetary assets, it is measured at fair value. When fair value cannot be measured reliably, a nominal amount is assigned.

Asset-related government grant is recognised as deferred income and is amortised evenly in profit or loss over the useful lives of related assets.

Income-related government grant that is used to compensate subsequent related expenses or losses of the Group is recognised as deferred income and recorded in profit or loss when related expenses or losses are incurred. When the grant is used to compensate expenses or losses that were already incurred, they are directly recognised in the current period profit or loss.

(aa) Revenue and other income

Income is increases in economic benefits during the accounting period in the form of inflows or enhancements of assets or decreases of liabilities that result in an increase in equity, other than those relating to contributions from equity participants.

Revenue is recognised when (or as) the Group satisfies a performance obligation in the contract by transferring the control over a promised good or service to a customer.

NOTES TO THE FINANCIAL STATEMENTS

2 MATERIAL ACCOUNTING POLICIES (CONTINUED)

(aa) Revenue and other income (Continued)

When two or more performance obligations are identified, the Group allocates the transaction price to each performance obligation identified in the contract on a relative stand-alone selling price basis at contract inception and recognises as revenue the amount of the transaction price that is allocated to that performance obligation.

Transaction price is the amount of consideration to which the Group expects to be entitled in exchange for transferring promised goods or services to a customer, excluding amounts collected on behalf of third parties. Revenue is only recognised to the extent that it is highly probable that a significant reversal in the amount of cumulative revenue recognised will not occur. The Group recognises a refund liability if the entity receives consideration from a customer and expects to refund some or all of that consideration to the customer. Where the contract contains a significant financing component, the Group recognises revenue at an amount that reflects the price that a customer would have paid for the promised goods or services if the customer had paid cash for those goods or services when (or as) they transfer to the customer. The difference between the promised amount of consideration and its present value is amortised using the effective interest rate. The Group will not adjust the promised amount of consideration for the effects of a significant financing component if the Group expects, at contract inception, that the period between when the Group transfers a promised good or service to a customer and when the customer pays for that good or service will be one year or less.

A performance obligation is satisfied over time if one of the following criteria is met:

– When the customer simultaneously receives and consumes the benefits provided by the Group's performance, as the Group performs;

– When the Group's performance creates or enhances an asset that the customer controls as the asset is created or enhanced;

– When the Group's performance does not create an asset with an alternative use to the entity and the Group has an enforceable right to payment for performance completed to date.

For performance obligations satisfied over time, revenue is recognised on the basis of direct measurements of the value to the customer of the goods or services transferred to date relative to the remaining goods or services promised under the contract. When the outcome of the contract cannot be reasonably measured, revenue is recognised only to the extent of contract costs incurred that are expected to be recovered.

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2 MATERIAL ACCOUNTING POLICIES (CONTINUED)

(aa) Revenue and other income (Continued)

For performance obligations satisfied at a point in time, revenue is recognised when the customer obtains control of the promised good or service in the contract. The Group considers indicators of the transfer of control, which include, but are not limited to, the following:

– The Group has a present right to payment for the asset;

– The Group has transferred physical possession of the asset;

– The customer has legal title to the asset or the significant risks and rewards of ownership of the asset; or

– The customer has accepted the asset.

If the Group performs by transferring goods or services to a customer before being unconditionally entitled to the consideration under the contract terms, a contract asset is recognised for the earned consideration that is conditional. Contract assets are subject to impairment assessment, details of which are included in the accounting policies for impairment of financial assets (Note 2(m) (vi)). They are reclassified to trade receivables when the right to the consideration becomes unconditional. The Group's obligation to transfer goods or services to a customer for which the Group has received consideration (or the amount is due) from the customer is presented as a contract liability.

Further details of revenue and income recognition policies are as follows:

(i) Sale of power

Revenue is recognised upon transmission of electricity to the power grid when the control of the electricity is transferred at the same time.

(ii) Sale of heat

Revenue is recognised upon transmission of heat to the customers when the control of the heat is transferred at the same time.

(iii) Service revenue

Service revenue refers to amounts received from port service, transportation service, maintenance service and heating pipeline service that is recognised over time during the provision of service, using an input method to measure progress towards complete satisfaction of the service, because the customer simultaneously receives and consumes the benefits provided by the Group. Revenue is recognised on a straight-line basis because the entity's inputs are expended evenly throughout the performance period.

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2 MATERIAL ACCOUNTING POLICIES (CONTINUED)

(aa) Revenue and other income (Continued)

Further details of revenue and income recognition policies are as follows: (Continued)

(iv) Coal and raw material sales revenue

Revenue is recognised when the control of the fuel and materials is transferred to the customers.

(v) Rental income from operating leases

Rental income receivable under operating leases is recognised in profit or loss in equal instalments over the periods covered by the lease term, except where an alternative basis is more representative of the pattern of benefits to be derived from the use of the leased asset. Lease incentives granted are recognised in profit or loss as an integral part of the aggregate net lease payments receivable. Contingent rentals are recognised as income in the accounting period in which they are earned.

(vi) Dividend income

Dividend income is recognised when the shareholders' right to receive payment has been established, it is probable that the economic benefits associated with the dividend will flow to the Group and the amount of the dividend can be measured reliably.

(vii) Interest income

Interest income from deposits is recognised on a time proportion basis using the effective interest method. Interest income from finance leases is recognised on a basis that reflects a constant periodic rate of return on the net investment in the finance lease.

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2 MATERIAL ACCOUNTING POLICIES (CONTINUED)

(ab) Contract costs

Other than the costs which are capitalised as inventories, property, plant and equipment and intangible assets, costs incurred to fulfil a contract with a customer are capitalised as an asset if all of the following criteria are met:

(i) The costs relate directly to a contract or to an anticipated contract that the entity can specifically identify;

(ii) The costs generate or enhance resources of the entity that will be used in satisfying (or in continuing to satisfy) performance obligations in the future;

(iii) The costs are expected to be recovered.

The capitalised contract costs are amortised and charged to the statement of profit or loss and other comprehensive income on a systematic basis that is consistent with the transfer to the customer of the goods or services to which the asset relates. Other contract costs are expensed as incurred.

Impairment losses are recognised to the extent that the carrying amount of the contract cost asset exceeds the net of:

(i) remaining amount of consideration that the Group expects to receive in exchange for the goods or services to which the asset relates, less

(ii) any costs that relate directly to providing those goods or services that have not yet been recognised as expenses.

2 MATERIAL ACCOUNTING POLICIES (CONTINUED)

(ac) Leases

The Group assesses at contract inception whether a contract is, or contains, a lease. A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

Group as a lessee

The Group applies a single recognition and measurement approach for all leases, except for short-term leases and leases of low-value assets. The Group recognises lease liabilities to make lease payments and right-of-use assets representing the right to use the underlying assets.

At inception or on reassessment of a contract that contains a lease component and non-lease component(s), the Group adopts the practical expedient not to separate non-lease component(s) and to account for the lease component and the associated non-lease component(s) as a single lease component.

(i) Right-of-use assets

Right-of-use assets are recognised at the commencement date of the lease (that is the date the underlying asset is available for use). Right-of-use assets are measured at cost, less any accumulated depreciation and any impairment losses, and adjusted for any remeasurement of lease liabilities. The cost of right-of-use assets includes the amount of lease liabilities recognised, initial direct costs incurred, and lease payments made at or before the commencement date less any lease incentives received. Right-of-use assets are depreciated on a straight-line basis over the shorter of the lease terms and the estimated useful lives of the assets as follows:

	Depreciation period
Buildings	2.5 – 10 years
Electric utility plant in service	8 – 25 years
Transportation facilities	30 years
Land use rights	10 – 50 years
Others	5 – 30 years

If ownership of the leased asset transfers to the Group by the end of the lease term or the cost reflects the exercise of a purchase option, depreciation is calculated using the estimated useful life of the asset.

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2 MATERIAL ACCOUNTING POLICIES (CONTINUED)

(ac) Leases (Continued)

Group as a lessee (Continued)

(ii) Lease liabilities

Lease liabilities are recognised at the commencement date of the lease at the present value of lease payments to be made over the lease term. The lease payments include fixed payments (including in-substance fixed payments) less any lease incentives receivable, variable lease payments that depend on an index or a rate, and amounts expected to be paid under residual value guarantees. The lease payments also include the exercise price of a purchase option reasonably certain to be exercised by the Group and payments of penalties for termination of a lease, if the lease term reflects the Group exercising the option to terminate the lease. The variable lease payments that do not depend on an index or a rate are recognised as an expense in the period in which the event or condition that triggers the payment occurs.

In calculating the present value of lease payments, the Group uses its incremental borrowing rate at the lease commencement date because the interest rate implicit in the lease is not readily determinable. After the commencement date, the amount of lease liabilities is increased to reflect the accretion of interest and reduced for the lease payments made. In addition, the carrying amount of lease liabilities is remeasured if there is a modification, a change in the lease term, a change in lease payments (e.g., a change to future lease payments resulting from a change in an index or rate) or a change in assessment of an option to purchase the underlying asset.

(iii) Short-term leases and leases of low-value assets

The Group has elected not to recognise right-of-use assets and lease liabilities for its short-term leases (elected by class of underlying asset) of certain offices and apartments for employees (that is those leases that have a lease term of 12 months or less from the commencement date and do not contain a purchase option). It also applies the recognition exemption for leases of low-value assets to leases of office equipment and laptop computers that are considered to be of low value. Instead, the Group recognises the lease payments associated with those leases as an expense on a straight-line basis over the lease term.

Group as a lessor

When the Group acts as a lessor, it classifies at lease inception (or when there is a lease modification) each of its leases as either an operating lease or a finance lease.

Leases in which the Group does not transfer substantially all the risks and rewards incidental to ownership of an asset are classified as operating leases. When a contract contains lease and non-lease components, the Group allocates the consideration in the contract to each component on a relative stand-alone selling price basis. Rental income is accounted for on a straight-line basis over the lease term and is included in revenue in the statement of profit or loss and other comprehensive income due to its operating nature. Initial direct costs incurred in negotiating and arranging an operating lease are added to the carrying amount of the leased asset and recognised over the lease term on the same basis as rental income. Contingent rents are recognised as revenue in the period in which they are earned.

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2 MATERIAL ACCOUNTING POLICIES (CONTINUED)

(ac) Leases (Continued)

Group as a lessor (Continued)

Leases that transfer substantially all the risks and rewards incidental to ownership of an underlying asset to the lessee are accounted for as finance leases. At the commencement date, the cost of the leased asset is capitalised at the present value of the lease payments and related payments (including the initial direct costs), and presented as a receivable at an amount equal to the net investment in the lease. The finance income of such leases is recognised in the statement of profit or loss and other comprehensive income so as to provide a constant periodic rate of charge over the lease terms.

(ad) Contingencies

Contingent liabilities are not recognised in the financial statements. They are disclosed unless the possibility of an outflow of resources embodying economic benefits is remote. Contingent assets are not recognised in the financial statements but disclosed when an inflow of economic benefit is probable.

(ae) Fair value management

The Group measures its derivative financial instruments and equity investments at fair value at the end of each reporting period. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value measurement is based on the presumption that the transaction to sell the asset or transfer the liability takes place either in the principal market for the asset or liability, or in the absence of a principal market, in the most advantageous market for the asset or liability. The principal or the most advantageous market must be accessible by the Group. The fair value of an asset or a liability is measured using the assumptions that market participants would use when pricing the asset or liability, assuming that market participants act in their economic best interest.

A fair value measurement of a non-financial asset takes into account a market participant's ability to generate economic benefits by using the asset in its highest and best use or by selling it to another market participant that would use the asset in its highest and best use.

The Group uses valuation techniques that are appropriate in the circumstances and for which sufficient data are available to measure fair value, maximising the use of relevant observable inputs and minimising the use of unobservable inputs.

2 MATERIAL ACCOUNTING POLICIES (CONTINUED)

(ae) Fair value management (Continued)

All assets and liabilities for which fair value is measured or disclosed in the financial statements are categorised within the fair value hierarchy, described as follows, based on the lowest level input that is significant to the fair value measurement as a whole:

Level 1 – based on quoted prices (unadjusted) in active markets for identical assets or liabilities

Level 2 – based on valuation techniques for which the lowest level input that is significant to the fair value measurement is observable, either directly or indirectly

Level 3 – based on valuation techniques for which the lowest level input that is significant to the fair value measurement is unobservable

For assets and liabilities that are recognised in the financial statements on a recurring basis, the Group determines whether transfers have occurred between levels in the hierarchy by reassessing categorisation (based on the lowest level input that is significant to the fair value measurement as a whole) at the end of each reporting period.

(af) Research and development costs

All research costs are charged to the statement of profit or loss as incurred.

Expenditure incurred on projects to develop new products is capitalised and deferred only when the Group can demonstrate the technical feasibility of completing the intangible asset so that it will be available for use or sale, its intention to complete and its ability to use or sell the asset, how the asset will generate future economic benefits, the availability of resources to complete the project and the ability to measure reliably the expenditure during the development. Product development expenditure which does not meet these criteria is expensed when incurred.

(ag) Events after the reporting period

If the Group receives information after the reporting period, but prior to the date of authorisation for issue, about conditions that existed at the end of the reporting period, it will assess whether the information affects the amounts that it recognises in its financial statements. The Group will adjust the amounts recognised in its financial statements to reflect any adjusting events after the reporting period and update the disclosures that relate to those conditions in light of the new information. For non-adjusting events after the reporting period, the Group will not change the amounts recognised in its financial statements, but will disclose the nature of the non-adjusting events and an estimate of their financial effects, or a statement that such an estimate cannot be made, if applicable.

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2 MATERIAL ACCOUNTING POLICIES (CONTINUED)

(ah) Issued but not yet effective IFRS accounting standards

The Group has not applied the following new and revised IFRS accounting standards, that have been issued but are not yet effective, in these financial statements. The Group intends to apply these new and revised IFRS accounting standards, if applicable, when they become effective.

IFRS 18	*Presentation and Disclosure in Financial Statements* [3]
IFRS 19	*Subsidiaries without Public Accountability: Disclosures* [3]
Amendments to IFRS 9 and IFRS 7	*Amendments to the Classification and Measurement of Financial Instruments* [2]
Amendments to IFRS 9 and IFRS 7	*Contracts Referencing Nature-dependent Electricity* [2]
Amendments to IAS 21	*Lack of Exchangeability* [1]
Annual Improvements to IFRS Accounting Standards – Volume 11	Amendments to IFRS 1, IFRS 7, IFRS 9, IFRS 10 and IAS 7 [2]

1 Effective for annual periods beginning on or after 1 January 2025
2 Effective for annual periods beginning on or after 1 January 2026
3 Effective for annual/reporting periods beginning on or after 1 January 2027

Further information about those IFRS accounting standards that are expected to be applicable to the Group is described below.

(i) IFRS 18 *Presentation and Disclosure in Financial Statements*

In April 2024, the IASB issued IFRS 18, which replaces IAS 1. While a number of sections have been brought forward from IAS 1 with limited changes, IFRS 18 introduces new requirements for presentation within the statement of profit or loss and other comprehensive income, including specified totals and subtotals. It also requires disclosure of management-defined performance measures and includes new requirements for aggregation and disaggregation of financial information based on the identified "roles" of the primary financial statements and the notes.

Narrow scope amendments have been made to IAS 7 Statement of Cash Flows, and some requirements previously included within IAS 1 have been moved to IAS 8, which has been renamed IAS 8 *Basis of Preparation of Financial Statements*. These new requirements are expected to impact all reporting entities. IFRS 18 and all consequential amendments are effective for reporting periods beginning on or after 1 January 2027, with earlier application permitted. Retrospective application is required.

The Group is currently analysing the new requirements and assessing the impact of IFRS 18 on the presentation and disclosure of the Group's financial statements.

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2 MATERIAL ACCOUNTING POLICIES (CONTINUED)

(ah) Issued but not yet effective IFRS accounting standards (Continued)

(ii) Amendments to IFRS 9 and IFRS 7 *Amendments to the Classification and Measurement of Financial Instruments*

Amendments to IFRS 9 and IFRS 7 clarify the date on which a financial asset or financial liability is derecognised and introduce an accounting policy option to derecognise a financial liability that is settled through an electronic payment system before the settlement date if specified criteria are met. The amendments clarify how to assess the contractual cash flow characteristics of financial assets with environmental, social and governance and other similar contingent features. Moreover, the amendments clarify the requirements for classifying financial assets with non-recourse features and contractually linked instruments. The amendments also include additional disclosures for investments in equity instruments designated at fair value through other comprehensive income and financial instruments with contingent features. The amendments shall be applied retrospectively with an adjustment to opening retained profits (or other component of equity) at the initial application date. Prior periods are not required to be restated and can only be restated without the use of hindsight. Earlier application of either all the amendments at the same time or only the amendments related to the classification of financial assets is permitted.

The amendments are not expected to have any significant impact on the Group's financial statements.

(iii) Amendments to IFRS 9 and IFRS 7 *Contracts Referencing Nature-dependent Electricity*

On 18 December 2024, the IASB published amendments to IFRS 9 and IFRS 7: *Contracts Referencing Nature-dependent Electricity*. The amendments only apply to contracts that reference nature-dependent electricity and clarify the application of the "own-use" requirements for in-scope contracts. The amendments will allow an entity designating a contract referencing nature-dependent electricity as the hedging instrument in a hedge of forecast electricity transactions, to designate a variable nominal amount of forecast electricity transactions as the hedged item, if specified criteria are met.

IFRS 7 has been amended to require disclosures relating to contracts that have been excluded from the scope of IFRS 9 as a result of the amendments. In such cases, an entity must disclose in a single note:

- Information about the contractual features that expose the entity to variability in an underlying amount of electricity and the risk that the entity would be required to buy electricity during a delivery interval where it cannot use it.

- Information about unrecognised contractual commitments arising from such contracts.

- Qualitative and quantitative information about the effects on the entity's financial performance for the reporting period, based on the information that the entity used to assess whether it was a net purchaser of electricity.

The IFRS 7 disclosure amendments must be applied when the IFRS 9 amendments are applied. If an entity does not restate comparative information, then the entity must not present comparative disclosures. The effective date of the amendments is for annual reporting periods beginning on or after 1 January 2026, with early application permitted. The Group is currently assessing the impact of the amendments on the Group's financial statements.

2 MATERIAL ACCOUNTING POLICIES (CONTINUED)

(ah) Issued but not yet effective IFRS accounting standards (Continued)

(iv) Amendments to IAS 21 *Lack of Exchangeability*

Amendments to IAS 21 specify how an entity shall assess whether a currency is exchangeable into another currency and how it shall estimate a spot exchange rate at a measurement date when exchangeability is lacking. The amendments require disclosures of information that enable users of financial statements to understand the impact of a currency not being exchangeable. Earlier application is permitted. When applying the amendments, an entity cannot restate comparative information. Any cumulative effect of initially applying the amendments shall be recognised as an adjustment to the opening balance of retained profits or to the cumulative amount of translation differences accumulated in a separate component of equity, where appropriate, at the date of initial application. The amendments are not expected to have any significant impact on the Group's financial statements.

(v) *Annual Improvements to IFRS Accounting Standards – Volume 11* Amendments to IFRS 1, IFRS 7 (and the accompanying Guidance on implementing IFRS 7), IFRS 9, IFRS 10 and IAS 7

Details of the amendments that are expected to be applicable to the Group are as follows:

- IFRS 7 *Financial Instruments: Disclosures:* The amendments have updated certain wording in paragraph B38 of IFRS 7 and paragraphs IG1, IG14 and IG20B of the Guidance on implementing IFRS 7 for the purpose of simplification or achieving consistency with other paragraphs in the standard and/or with the concepts and terminology used in other standards. In addition, the amendments clarify that the Guidance on implementing IFRS 7 does not necessarily illustrate all the requirements in the referenced paragraphs of IFRS 7 nor does it create additional requirements. Earlier application is permitted. The amendments are not expected to have any significant impact on the Group's financial statements.

- IFRS 9 *Financial Instruments:* The amendments clarify that when a lessee has determined that a lease liability has been extinguished in accordance with IFRS 9, the lessee is required to apply paragraph 3.3.3 of IFRS 9 and recognise any resulting gain or loss in profit or loss. In addition, the amendments have updated certain wording in paragraph 5.1.3 of IFRS 9 and Appendix A of IFRS 9 to remove potential confusion. Earlier application is permitted. The amendments are not expected to have any significant impact on the Group's financial statements.

- IFRS 10 *Consolidated Financial Statements*: The amendments clarify that the relationship described in paragraph B74 of IFRS 10 is just one example of various relationships that might exist between the investor and other parties acting as de facto agents of the investor, which removes the inconsistency with the requirement in paragraph B73 of IFRS 10. Earlier application is permitted. The amendments are not expected to have any significant impact on the Group's financial statements.

- IAS 7 *Statement of Cash Flows*: The amendments replace the term "cost method" with "at cost" in paragraph 37 of IAS 7 following the prior deletion of the definition of "cost method". Earlier application is permitted. The amendments are not expected to have any impact on the Group's financial statements.

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3 FINANCIAL AND CAPITAL RISKS MANAGEMENT

(a) Financial risk management

Risk management, including the management of financial risks, is carried out under the instructions of the Strategic Committee of the Board of Directors and the Risk Management Team. The Group works out general principles for overall management as well as management policies covering specific areas. In considering the importance of risks, the Group identifies and evaluates risks at head office and individual power plant level, and requires analysis and proper communication of the information collected periodically.

SinoSing Power and its subsidiaries and Huaneng Shandong Ruyi (Pakistan) Energy (Private) Co., Ltd. ("Ruyi Pakistan Energy") and Shandong Huatai Electric Power Operation & Maintenance (Private) Co., Ltd. ("Huatai Power"), the subsidiaries of Hong Kong Energy, are subject to financial risks that are different from the entities operating within the Chinese Mainland. They have a series of controls in place to maintain the cost of risks occurring and the cost of managing the risks at an acceptable level. Management continually monitors the risk management process to ensure that an appropriate balance between risk and control is achieved. SinoSing Power and its subsidiaries, Ruyi Pakistan Energy and Huatai Power have their written policies and financial authorisation limits in place which are reviewed periodically. These financial authorisation limits seek to mitigate and eliminate operational risks by setting approval thresholds required for entering into contractual obligations and investments.

(i) Market risk

(1) Foreign exchange risk

Foreign exchange risk of the entities operating within the Chinese Mainland primarily arises from loans denominated in foreign currencies of the Group. SinoSing Power and its subsidiaries are exposed to foreign exchange risk on bank balances, accounts receivable, other receivables and assets, accounts payable, long-term bonds and other liabilities that are denominated primarily in US$, a currency other than the Singapore dollar ("S$"), their functional currency. Ruyi Pakistan Energy is exposed to foreign exchange risk on bank balances, financial lease receivables, accounts payable and other liabilities and long-term loans that are denominated primarily in US$, a currency other than Pakistan rupee ("PKR"), their functional currency. The Group manages exchange risk through closely monitoring the interest and exchange market.

As at 31 December 2024, if RMB had weakened/strengthened by 5% (2023: 5%) against US$ with all other variables constant, the Group would further recognise an exchange gain/loss amounting to RMB1.71 million (2023: RMB0.50 million).The ranges of such sensitivity disclosed above were based on the observation on the historical trend of related exchange rates during the previous year under analysis.

As at 31 December 2024, if S$ had weakened/strengthened by 10% (2023: 10%) against US$ with all other variables constant, SinoSing Power and its subsidiaries would further recognise exchange gain/loss amounting to RMB7 million (2023: RMB6 million). The range of such sensitivity disclosed above was based on the management's experience and forecast.

SinoSing Power and its subsidiaries also are exposed to foreign exchange risk on fuel purchases and long-term loans that are denominated primarily in US$. They substantially hedge their estimated foreign currency exposure in respect of forecast fuel purchases for a period in the future using primarily foreign currency contracts.

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3 FINANCIAL AND CAPITAL RISKS MANAGEMENT (CONTINUED)

(a) Financial risk management (Continued)

(i) Market risk (Continued)

(1) Foreign exchange risk (Continued)

As at 31 December 2024, if PKR had weakened/strengthened by 5% (2023: 5%) against US$ with all other variables constant, Ruyi Pakistan Energy would further recognise an exchange gain/loss amounting to RMB73 million (2023: exchange loss/gain amounting to RMB23 million). The range of such sensitivity disclosed above was based on the management's experience and forecast.

Ruyi Pakistan Energy is exposed to foreign exchange risk on payments of long-term loans that are denominated primarily in US$. Ruyi Pakistan Energy entered into an agreement on a tariff adjustment mechanism with Central Power Purchasing Agency (Guarantee) Limited ("CPPA-G") and the tariff adjustment mechanism was approved by the National Electric Power Regulatory Authority. The mechanism mitigates foreign exchange risk by decreasing or increasing electricity tariff when PKR strengthens or weakens against US$.

(2) Price risk

The other equity instrument investments of the Group designated as at FVOCI are exposed to equity security price risk.

Detailed information relating to the other equity instrument investments is disclosed in Note 10. The Group closely monitors the pricing trends in the open market in determining its long-term strategic stake holding decisions.

The Group is exposed to fuel price risk on fuel purchases. In particular, SinoSing Power and its subsidiaries use fuel oil swaps to hedge against such a risk and designate them as cash flow hedges. Please refer to Note 13 for details.

(3) Cash flow interest rate risk

The interest rate risk of the Group primarily arises from loans. Loans borrowed at variable rates expose the Group to cash flow interest rate risk. The exposures of these risks are disclosed in Notes 24 and 30 to the financial statements. The Group has entered into interest rate swap agreements with banks to hedge against a portion of cash flow interest rate risk.

As at 31 December 2024, if interest rates on RMB-denominated borrowings had been 50 basis (2023:50 basis) points higher/lower with all other variables held constant, interest expense for the year would have been RMB1,078 million (2023:RMB1,029 million) higher/lower. If interest rates on US$-denominated borrowings had been 50 basis (2023:50 basis) points higher/lower with all other variables held constant, interest expense for the year would have been RMB29 million (2023:RMB38 million) higher/lower. The ranges of such sensitivity disclosed above were based on the observation on the historical trend of related interest rates during the previous year under analysis.

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3 FINANCIAL AND CAPITAL RISKS MANAGEMENT (CONTINUED)

(a) Financial risk management (Continued)

(i) Market risk (Continued)

(3) Cash flow interest rate risk (Continued)

TP-STM Water Resources Pte. Ltd. ("TPSTMWR") also entered into a number of floating-to-fixed interest rate swap agreements to hedge against cash flow interest rate risk of loans.

According to the interest rate swap agreements, TPSTMWR agrees with the counterparty to settle the difference between fixed contract rates and floating-rate interest amounts calculated by reference to the agreed notional amount quarterly until 2044. Please refer to Note 13 for details.

(ii) Credit risk

Credit risk arises from bank deposits, accounts and notes receivables, contract assets, other receivables and assets and other non-current assets. The maximum exposures of contract assets, other non-current assets, other receivables and assets, accounts and notes receivables and bank deposits are disclosed in Notes 5(c), 15, 17, 18 and 35 to the financial statements, respectively.

Bank deposits are placed with reputable banks and financial institutions. In addition, a significant portion is deposited with a non-bank financial institution which is a related party of the Group. The Group has a director on the Board of this non-bank financial institution and exercises influence. Corresponding maximum exposures of these bank deposits are disclosed in Note 36 (a) (i) to the financial statements.

The majority of the power plants of the Group operating within the PRC sell electricity generated to their sole customers, the power grid companies of their respective provinces or regions where the power plants operate. These power plants communicate with their individual grid companies periodically and believe that adequate provision for loss allowance on accounts receivable has been made in the financial statements.

3 FINANCIAL AND CAPITAL RISKS MANAGEMENT (CONTINUED)

(a) Financial risk management (Continued)

(ii) Credit risk (Continued)

Pursuant to Cai Jian [2020] No. 4 *Opinions on the Promotion of Healthy Development over Non-water Renewable Energy Power Generation* jointly issued by the Ministry of Finance, the National Development and Reform Commission and the National Energy Administration in January 2020, the application process of renewable energy tariff premium has been further simplified to file the project tariff supplementary information on the National Renewable Energy Information Management Platform. The tariff premium receivables are settled in accordance with prevailing government policies and prevalent payment trends of the Ministry of Finance. There is no due date for settlement. The directors are of the opinion that the application process will be completed in due course and these trade receivables from tariff premium are fully recoverable considering there were no bad debt experiences with the grid companies in the past and such tariff premium is funded by the PRC government. On 20 January 2020, the Ministry of Finance, the National Development and Reform Commission and the National Energy Administration jointly issued Cai Jian [2020] No. 5 Notice on the *Measures for Administration of Funds for Tariff Premium of Renewable Energy and abolished the Notice on the Interim Measures for Administration of Subsidy Funds for Tariff Premium of Renewable Energy* issued in 2012. The new measures clarified that the total amount of funds for tariff premium will be determined by the Ministry of Finance in accordance with the principle of determining expenditure by revenue, and the capacity of newly installed renewable energy projects within the premium scope will be determined by the National Development and Reform Commission and the Energy Administration. At the same time, the stock projects included in the annual construction plan could be enrolled in the list of subsidies after approved by the power grid company. As at 31 December 2024, most relevant projects of the Group have been approved for renewable energy subsidies, and some projects are under application for approval.

Singapore subsidiaries derive revenue mainly from the sale of electricity to the National Electricity Market of Singapore operated by Energy Market Company Pte. Ltd., which does not have high credit risk. Singapore subsidiaries also derive revenue mainly from retailing electricity to household and business. These customers engage in a wide spectrum of manufacturing and commercial activities in a variety of industries. Singapore subsidiaries also entered into a build-operate-transfer agreement with a Singapore government related entity for certain water related projects, the contract assets were recognised accordingly, and the Singapore government related entity does not have high credit risk.

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3 FINANCIAL AND CAPITAL RISKS MANAGEMENT (CONTINUED)

(a) Financial risk management (Continued)

(ii) Credit risk (Continued)

Ruyi Pakistan Energy derives revenue from the sale of electricity to CPPA-G, which is measured on the basis of lifetime ECLs.

The Group measures loss allowances for accounts and notes receivables and contract assets at an amount equal to lifetime ECLs, which is calculated using a provision matrix. As at 31 December 2024, for accounts receivable amounting to RMB1,585 million with specific credit risk, the Group measures their credit risk individually and recognised loss allowances amounting to RMB140 million. For other accounts and notes receivables and contract assets, the Group measures loss allowances based on the past due status and further distinguish them by the Group's different customer bases and business types into five categories as stated in below table. The Group's historical credit loss experience does not indicate significantly different loss patterns for these five categories.

Accounts and notes receivables and contract assets	Gross carrying amount	ECL	Loss allowance
Receivables from domestic sales of power	42,545,719	–	–
Receivables from domestic sales of heat	2,776,131	–	–
Receivables from overseas sales of power	1,184,055	0.79%	9,355
Receivables from domestic sales of others	144,886	–	–
Receivables from overseas sales of others	1,086,793	–	–
Total	47,737,584		9,355

Finance lease receivables are mainly from a domestic related party, business enterprises in Singapore and CPPA-G in Pakistan. As the related party and Singapore local enterprises have a good track of records and no historical losses have been incurred, the Group concluded that these receivables have low credit risk and remote possibility of default. The finance lease receivables from CPPA-G are secured against the sovereign guarantee issued by the Government of Pakistan pursuant to the designated agreement. The ECLs of the finance lease receivables are measured on the basis of lifetime ECLs, and a 0.03% of risk of default against the Government of Pakistan is considered during the assessment. The ECLs relating to the finance lease receivables reversed during the year were RMB0.31 million.

(Amounts expressed in thousands of RMB)

3 FINANCIAL AND CAPITAL RISKS MANAGEMENT (CONTINUED)

(a) Financial risk management (Continued)

(ii) Credit risk (Continued)

The Group measures loss allowances for other receivables at an amount equal to 12-month ECLs unless there has been a significant increase in credit risk.

Other receivables	Gross carrying amount	Loss allowance
Within 1 year	2,813,933	210,965
1-2 years	279,637	4,840
2-3 years	296,582	98
3-4 years	123,593	–
4-5 years	52,714	81
Over 5 years	243,470	92,130
Total	3,809,929	308,114

Expected loss rates are based on actual loss experience over the past 5 years. These rates are adjusted to reflect differences between economic conditions during the period over which the historic data has been collected, the current conditions, and the Group's view of economic conditions over the expected lives of the receivables.

(iii) Liquidity risk

Liquidity risk management is to primarily ensure the ability of the Group to meet its liabilities as and when they are fall due. The liquidity reserve comprises the undrawn borrowing facility and cash and cash equivalents available as at each month end in meeting the Group's liabilities.

The Group maintains flexibility in funding by cash generated by their operating activities and availability of committed credit facilities.

Financial liabilities due within 12 months are presented as current liabilities in the statement of financial position. The cash flows of derivative financial liabilities and repayment schedules of the long-term loans, long-term bonds, other non-current liabilities and lease liabilities are disclosed in Notes 13, 24, 25, 26 and 41, respectively.

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3 FINANCIAL AND CAPITAL RISKS MANAGEMENT (CONTINUED)

(b) Fair value estimation

(i) Fair value measurements

The following table presents the assets and liabilities that are measured at fair value at 31 December 2024 on a recurring basis.

	Level 1	Level 2	Level 3	Total
Recurring fair value measurements				
Assets				
Derivatives used for hedging (Note 13)	–	294,170	–	294,170
Other equity instrument investments (Note 10)	–	–	589,920	589,920
Total assets	–	294,170	589,920	884,090
Liabilities				
Derivatives used for hedging (Note 13)	–	448,235	–	448,235
Total liabilities	–	448,235	–	448,235

The following table presents the assets and liabilities that are measured at fair value at 31 December 2023 on a recurring basis.

	Level 1	Level 2	Level 3	Total
Recurring fair value measurements				
Assets				
Derivatives used for hedging (Note 13)	–	60,027	–	60,027
Other equity instrument investments (Note 10)	–	–	642,923	642,923
Total assets	–	60,027	642,923	702,950
Liabilities				
Derivatives used for hedging (Note 13)	–	694,814	–	694,814
Total liabilities	–	694,814	–	694,814

3 FINANCIAL AND CAPITAL RISKS MANAGEMENT (CONTINUED)

(b) Fair value estimation (Continued)

(i) Fair value measurements (Continued)

As at 31 December 2024, the Group had no financial instruments traded in active markets. The fair value of financial instruments that are not traded in an active market is determined by using valuation techniques. These valuation techniques maximise the use of relevant observable inputs and minimise the use of unobservable inputs. If all significant inputs required to measure the fair value of an instrument are observable, the instrument is included in level 2.

If one or more of the significant inputs is not based on observable market data, the instrument is included in level 3.

Specific valuation techniques used to value financial instruments include:

- The forward exchange contracts and fuel oil swaps are both valued using quoted market prices or dealer quotes for similar instruments.

- The fair value of interest rate swaps is calculated as the present value of the estimated future cash flows based on observable yield curves.

- The model incorporates various market observable inputs including the annualised yields of similar securitisation products and interest rate curves. The carrying amounts of accounts receivable are the same as their fair values.

- The material other equity instrument investments in unlisted securities are valued using a market-base valuation technique based on assumptions that are not supported by observable market prices or rates. The Group determines comparable public companies based on industry, size, leverage and strategy and calculates an appropriate price multiple, such as price to book ("P/B") multiple for each comparable company identified.

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3 FINANCIAL AND CAPITAL RISKS MANAGEMENT (CONTINUED)

(b) Fair value estimation (Continued)

(i) Fair value measurements (Continued)

Below is a summary of significant unobservable inputs to the valuation of financial instruments together with a quantitative sensitivity analysis as at 31 December 2024:

	Valuation technique	Significant unobservable input	Range	Sensitivity of fair value to the input
Unlisted equity investments	Valuation multiples	Average P/B	1.19-1.31	10% increase/decrease in multiple would result in increase/decrease in fair value by RMB32.76 million.
		Discount for lack of marketability	18.05%-19.85%	10% increase/decrease in multiple would result in decrease/increase in fair value by RMB7.21 million.

The discount for lack of marketability represents the amounts of premiums and discounts determined by the Group that market participants would take into account when pricing the investments.

During the years ended 31 December 2024 and 2023, there were no transfers of financial instruments between level 1 and level 2, or transfers into or out of level 3.

(Amounts expressed in thousands of RMB)

3 FINANCIAL AND CAPITAL RISKS MANAGEMENT (CONTINUED)

(b) Fair value estimation (Continued)

(i) Fair value measurements (Continued)

The movements during the year in the balance of the level 3 fair value measurements are as follows:

	For the year ended 31 December	
	2024	2023
Other equity instrument investments		
Beginning of the year	**642,923**	708,912
Addition	**–**	605
Disposal	**–**	(12,137)
Fair value changes	**(53,003)**	(54,457)
End of the year	**589,920**	642,923
Changes in fair value recognised in other comprehensive income for the year, net of tax	**(39,752)**	(40,522)

(ii) Fair value disclosures

The carrying value less provision for loss allowances on accounts receivable, other receivables and assets, accounts payable and other liabilities, short-term bonds and short-term loans approximated to their fair values. The fair value of financial liabilities for disclosure purposes is estimated by discounting the future contractual cash flows at the current market interest rate that is available to the Group for similar financial instruments.

The estimated fair values of long-term loans and long-term bonds (both including current maturities) were approximately RMB182.12 billion and RMB46.81 billion as at 31 December 2024 (31 December 2023: RMB182.88 billion and RMB40.10 billion), respectively. The aggregate book values of these liabilities were approximately RMB183.78 billion and RMB45.70 billion as at 31 December 2024 (31 December 2023: RMB183.42 billion and RMB39.87 billion), respectively.

(c) Capital risk management

The objectives of the Group for managing capital are to safeguard the ability of the Group in continuing as a going concern in order to provide returns for shareholders and benefits for other stakeholders and to maintain an optimal capital structure to reduce the cost of capital.

The Group monitors capital by using debt ratio analysis. This ratio is calculated as total liabilities (sum of current liabilities and non-current liabilities) divided by total assets as shown in the consolidated statement of financial position. During 2024, the strategy of the Group's capital management remained unchanged from 2023. The debt ratio of the Group as at 31 December 2024 was 64.64% (31 December 2023: 67.41%).

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4 CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS

Estimates and judgements are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances.

The Group makes estimates and assumptions concerning the future. The resulting accounting estimates will, by definition, seldom equal the related actual results. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are discussed below.

(a) Accounting estimates on impairment of goodwill

In accordance with the accounting policies stated in Note 2(l), the Group performs annual tests on whether goodwill has suffered any impairment or more frequently if events or changes in circumstances indicate that the carrying value may be impaired. The recoverable amounts of CGU or CGUs to which goodwill has been allocated are determined based on value-in-use calculations. The annual goodwill impairment assessment is complex because the determination of the recoverable amount of the underlying CGUs involves significant estimates and judgements, including the future sales volumes, fuel prices, gross margin and terminal growth rate used to estimate future cash flows and discount rates applied to these forecasted future cash flows of the underlying CGUs. The value-in-use may be impacted in several different ways by transition risk in particular, such as climate-related legislation and regulations. Even though the Group has concluded that no single climate-related assumption is a key assumption for the 2024 test of goodwill, the Group considered expectations for increased costs of emissions and cost increases due to stricter recycling requirements in the cash-flow forecasts in assessing value-in-use amounts. These estimates and judgements may be significantly affected by changes in future market or economic conditions.

(b) Accounting estimates on impairment of property, plant and equipment

In accordance with the accounting policies stated in Note 2(l), the Group reviews at each reporting date to determine whether there is any indication of impairment on property, plant and equipment. If any such indication exists, then the recoverable amount of property, plant and equipment is estimated. The impairment assessment is by determining the recoverable amounts of the CGUs that the PPE are allocated to. The impairment assessment of property, plant and equipment was complex due to the significant estimates and judgements involved in the projections of future cash flows, including the future sales volumes, fuel prices, and discount rates applied to these forecasted future cash flows. The value-in-use may be impacted in several different ways by transition risk in particular, such as climate-related legislation and regulations. Even though the Group has concluded that no single climate-related assumption is a key assumption for the 2024 test of property, plant and equipment, the Group considered expectations for increased costs of emissions and cost increases due to stricter recycling requirements in the cash-flow forecasts in assessing value-in-use amounts. These estimates and judgements may be significantly affected by changes in future market or economic conditions.

(c) Deferred income tax assets

The Group recognises the deferred income tax assets to the extent that it is probable that future taxable profit and taxable temporary differences will be available against which the deductible temporary differences and tax losses carried forward can be utilised, using tax rates that are expected to be applied in the period when the asset is recovered. Recognition of deferred income tax assets was complex because it requires significant estimation and judgement, and it involves significant assumptions, including future taxable profits, future tax rates, the reversal of deductible and taxable temporary differences, and the possible utilisation of tax losses carried forward that could be significantly affected by changes in the tax law framework and future market or economic conditions. Further details on deferred taxes are disclosed in Note 31 to the financial statements.

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5 REVENUE AND SEGMENT INFORMATION

(a) Disaggregation of revenue

In the following table, revenue is disaggregated by major products and/or service lines of revenue recognition. The table also includes a reconciliation of the disaggregated operating revenue to the Group's reportable segments (Note 5(b)).

For the year ended 31 December 2024	PRC power segment	Overseas power segment Note 1	All other segments	Inter–segment revenue	Total
– Sales of power and heat	216,074,348	21,479,550	–	–	237,553,898
– Sales of coal ash, coal and raw materials	1,391,546	3,136	–	–	1,394,682
– Port service	–	–	736,370	(519,439)	216,931
– Transportation service	–	–	216,500	(144,321)	72,179
– Lease income	77,615	1,334,092	–	–	1,411,707
– Others	2,489,244	2,401,171	33,502	(22,391)	4,901,526
Total	220,032,753	25,217,949	986,372	(686,151)	245,550,923
Revenue:					
– From contracts with customers within the scope of IFRS 15					244,139,216
– From other sources					1,411,707

For the year ended 31 December 2023	PRC power segment	Overseas power segment Note 1	All other segments	Inter–segment revenue	Total
– Sales of power and heat	219,284,800	26,871,236	–	–	246,156,036
– Sales of coal ash, coal and raw materials	1,407,527	1,852	–	–	1,409,379
– Port service	–	–	663,581	(420,442)	243,139
– Transportation service	–	–	209,485	(145,948)	63,537
– Lease income	83,800	1,402,779	–	–	1,486,579
– Others	2,181,284	2,846,123	32,878	(22,260)	5,038,025
Total	222,957,411	31,121,990	905,944	(588,650)	254,396,695
Revenue:					
– From contracts with customers within the scope of IFRS 15					252,910,116
– From other sources					1,486,579

Note 1: The overseas power segment mainly consists of the operations in Singapore and Pakistan.

The revenue from the sale of power and heat and the sale of coal ash, coal and raw materials is recognised at the point in time upon the transfer of products, whereas the revenue from port service, transportation service, maintenance service, and heating pipeline service is recognised over time during the provision of such services. Lease income is recognised over the lease term.

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5 REVENUE AND SEGMENT INFORMATION (CONTINUED)

(b) Segment information

Directors and certain senior management of the Company perform the function as the chief operating decision maker (collectively referred to as the "senior management"). The senior management reviews the internal reporting of the Group in order to assess performance and allocate resources. The Company has determined the operating segments based on these reports. The reportable segments of the Group are the PRC power segment, overseas power segment and all other segments (mainly including port and transportation operations). No operating segments have been aggregated to form a reportable segment.

Senior management assesses the performance of the operating segments based on a measure of profit before income tax expense under China Accounting Standards for Business Enterprises ("PRC GAAP") excluding dividend income received from other equity instrument investments, share of profits of China Huaneng Finance Co., Ltd. ("Huaneng Finance") and operating results of the centrally managed and resource allocation functions of headquarters ("segment results"). Other information provided, except as noted below, to the senior management of the Company is measured under PRC GAAP.

Segment assets exclude prepaid income tax, deferred income tax assets, other equity instrument investments, investment in Huaneng Finance and assets related to the centrally managed and resource allocation functions of the headquarters that are not attributable to any operating segment ("corporate assets"). Segment liabilities exclude current income tax liabilities, deferred income tax liabilities and liabilities related to the centrally managed and resource allocation functions of the headquarters that are not attributable to any operating segment ("corporate liabilities"). These are part of the reconciliation to total assets and liabilities of the consolidated statement of financial position.

All sales among the operating segments have been eliminated as internal transactions when preparing the consolidated financial statements.

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5 REVENUE AND SEGMENT INFORMATION (CONTINUED)

(b) Segment information (Continued)

(Under PRC GAAP)

	PRC power segment	Overseas segment	All other segments	Total
For the year ended 31 December 2024				
Total revenue	**220,032,753**	**25,217,949**	**986,372**	**246,237,074**
Intersegment revenue	**–**	**–**	**(686,151)**	**(686,151)**
External revenue	**220,032,753**	**25,217,949**	**300,221**	**245,550,923**
Segment results	**14,119,298**	**3,657,056**	**377,483**	**18,153,837**
Interest income	**198,389**	**403,129**	**4,401**	**605,919**
Interest expense	**(6,743,867)**	**(952,217)**	**(90,376)**	**(7,786,460)**
Impairment loss	**(1,628,629)**	**(85,511)**	**–**	**(1,714,140)**
Reversal of/(provision) for credit loss	**28,423**	**24,584**	**(39,226)**	**13,781**
Depreciation and amortisation	**(24,810,209)**	**(742,928)**	**(284,218)**	**(25,837,355)**
Net loss on disposal of non-current assets	**(584,141)**	**(1,446)**	**(23)**	**(585,610)**
Share of profits less losses of associates and joint ventures	**755,079**	**–**	**299,524**	**1,054,603**
Income tax expense	**(3,369,477)**	**(594,571)**	**(12,518)**	**(3,976,566)**

	PRC power segment	Overseas segment	All other segments	Total
For the year ended 31 December 2023				
Total revenue	222,957,411	31,121,990	905,944	254,985,345
Intersegment revenue	–	–	(588,650)	(588,650)
External revenue	222,957,411	31,121,990	317,294	254,396,695
Segment results	8,147,698	4,987,181	115,510	13,250,389
Interest income	194,896	310,227	1,755	506,878
Interest expense	(7,645,067)	(1,154,473)	(114,778)	(8,914,318)
Impairment loss	(2,968,495)	(3,698)	–	(2,972,193)
Credit loss	(26,773)	(51,089)	(49,012)	(126,874)
Depreciation and amortisation	(24,099,983)	(707,643)	(257,549)	(25,065,175)
Net (loss)/gain on disposal of non-current assets	(314,464)	482	(11)	(313,993)
Share of profits less losses of associates and joint ventures	636,743	–	90,825	727,568
Income tax expense	(3,087,238)	(810,683)	(21,447)	(3,919,368)

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5 REVENUE AND SEGMENT INFORMATION (CONTINUED)

(b) Segment information (Continued)

(Under PRC GAAP)

	PRC power segment	Overseas segment	All other segments	Total
31 December 2024				
Segment assets	**528,529,486**	**41,577,645**	**10,530,303**	**580,637,434**
Including:				
Additions to non-current assets (excluding financial assets and deferred income tax assets)	**69,243,347**	**274,749**	**45,346**	**69,563,442**
Investments in associates	**14,160,764**	**–**	**5,575,405**	**19,736,169**
Investments in joint ventures	**1,962,702**	**–**	**961,959**	**2,924,661**
Segment liabilities	**(360,122,762)**	**(18,846,796)**	**(1,819,180)**	**(380,788,738)**

	PRC power segment	Overseas segment	All other segments	Total
31 December 2023				
Segment assets	481,211,396	42,142,777	10,483,831	533,838,004
Including:				
Additions to non-current assets (excluding financial assets and deferred income tax assets)	68,329,270	235,865	101,597	68,666,732
Investments in associates	13,100,088	–	5,501,131	18,601,219
Investments in joint ventures	1,320,945	–	893,971	2,214,916
Segment liabilities	(343,289,950)	(21,690,531)	(1,876,151)	(366,856,632)

(Amounts expressed in thousands of RMB)

5 REVENUE AND SEGMENT INFORMATION (CONTINUED)

(b) Segment information (Continued)

A reconciliation of external revenue to operating revenue is provided as follows:

	For the year ended 31 December	
	2024	2023
External revenue (PRC GAAP)	**245,550,923**	254,396,695
Operating revenue per IFRS accounting standards consolidated statement of profit or loss and other comprehensive income	**245,550,923**	254,396,695

A reconciliation of segment results to profit before income tax expense is provided as follows:

	For the year ended 31 December	
	2024	2023
Segment results (PRC GAAP)	**18,153,837**	13,250,389
Reconciling items (PRC GAAP):		
Loss related to the headquarters	**(252,206)**	(342,414)
Share of profits of Huaneng Finance	**183,721**	93,024
Dividend income of other equity instrument investments	**761**	835
Subtotal	**18,086,113**	13,001,834
Impact of IFRS accounting standards adjustments*	**(264,827)**	(524,692)
Profit before income tax expense per IFRS accounting standards consolidated statement of profit or loss and other comprehensive income	**17,821,286**	12,477,142

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5 REVENUE AND SEGMENT INFORMATION (CONTINUED)

(b) Segment information (Continued)

Reportable segment assets are reconciled to total assets as follows:

	As at 31 December	
	2024	2023
Total segment assets (PRC GAAP)	**580,637,434**	533,838,004
Reconciling items (PRC GAAP):		
Investment in Huaneng Finance	**1,985,070**	1,869,349
Deferred income tax assets	**3,256,059**	4,401,902
Prepaid income tax	**149,539**	148,075
Other equity instrument investments	**589,920**	642,923
Corporate assets	**224,731**	259,028
Subtotal	**586,842,753**	541,159,281
Impact of IFRS accounting standards adjustments*	**8,734,127**	9,156,732
Total assets per IFRS accounting standards consolidated statement of financial position	**595,576,880**	550,316,013

Reportable segment liabilities are reconciled to total liabilities as follows:

	As at 31 December	
	2024	2023
Total segment liabilities (PRC GAAP)	**(380,788,738)**	(366,856,632)
Reconciling items (PRC GAAP):		
Current income tax liabilities	**(872,057)**	(940,307)
Deferred income tax liabilities	**(1,711,662)**	(1,284,155)
Corporate liabilities	**(422,469)**	(715,626)
Subtotal	**(383,794,926)**	(369,796,720)
Impact of IFRS accounting standards adjustments*	**(1,202,908)**	(1,164,815)
Total liabilities per IFRS accounting standards consolidated statement of financial position	**(384,997,834)**	(370,961,535)

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5 REVENUE AND SEGMENT INFORMATION (CONTINUED)

(b) Segment information (Continued)

Other material items:

	Reportable segment total	Headquarters	Share of profits of Huaneng Finance	Impact of IFRS accounting standards adjustments*	Total
For the year ended 31 December 2024					
Total revenue	**245,550,923**	**–**	**–**	**–**	**245,550,923**
Interest expense	**(7,786,460)**	**–**	**–**	**–**	**(7,786,460)**
Depreciation and amortisation	**(25,837,355)**	**(38,704)**	**–**	**(540,602)**	**(26,416,661)**
Impairment loss	**(1,714,140)**	**–**	**–**	**–**	**(1,714,140)**
Reversal of/(provision) for credit loss	**13,781**	**–**	**–**	**(34,000)**	**(20,219)**
Share of profits less losses of associates and joint ventures	**1,054,603**	**–**	**183,721**	**21,580**	**1,259,904**
Net loss on disposal of non-current assets	**(585,610)**	**–**	**–**	**(8,767)**	**(594,377)**
Income tax expense	**(3,976,566)**	**–**	**–**	**161,473**	**(3,815,093)**
For the year ended 31 December 2023					
Total revenue	254,396,695	–	–	–	254,396,695
Interest expense	(8,914,318)	(23,766)	–	–	(8,938,084)
Depreciation and amortisation	(25,065,175)	(65,752)	–	(600,833)	(25,731,760)
Impairment loss	(2,972,193)	–	–	(164,709)	(3,136,902)
Credit loss	(126,874)	–	–	(2,135)	(129,009)
Share of profits less losses of associates and joint ventures	727,568	–	93,024	33,564	854,156
Net loss on disposal of non-current assets	(313,993)	–	–	(40,819)	(354,812)
Income tax expense	(3,919,368)	–	–	211,635	(3,707,733)

* IFRS accounting standards adjustments above primarily represented the reclassification adjustments and adjustments related to business combination, borrowing cost and reserve fund. Other than the reclassification adjustments, the differences will be gradually eliminated following subsequent depreciation and amortisation of related assets or the extinguishment of liabilities.

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5 REVENUE AND SEGMENT INFORMATION (CONTINUED)

(b) Segment information (Continued)

Geographical information (Under IFRS accounting standards):

(i) External revenue generated from the following countries:

	For the year ended 31 December	
	2024	2023
PRC	**220,332,974**	223,274,705
Overseas	**25,217,949**	31,121,990
Total	**245,550,923**	254,396,695

The geographical locations of customers are based on the locations at which the electricity was transferred, goods were delivered, and services were provided.

(ii) Non-current assets (excluding financial assets and deferred income tax assets) are located in the following countries:

	As at 31 December	
	2024	2023
PRC	**465,319,492**	422,749,621
Overseas	**22,007,431**	22,934,605
Total	**487,326,923**	445,684,226

The non-current asset information above is based on the locations of the assets.

The information on sales to major customers of the Group which accounted for 10% or more of external revenue is as follows:

In 2024, the revenue from grid companies under common control of State Grid Corporation of China within the PRC power segment in total accounted for 81% of external revenue (2023: 79%). The sales to a subsidiary of State Grid Corporation of China which accounted for 10% or more of external revenue are as follows:

	For the year ended 31 December			
	2024		2023	
	Amount	**Proportion**	Amount	Proportion
State Grid Shandong Electric Power Company	**34,219,109**	**14%**	36,748,949	14%

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5 REVENUE AND SEGMENT INFORMATION (CONTINUED)

(c) Contract assets and liabilities

The contract assets primarily relate to the Group's rights to consideration for service completed but not billed at end of the year. The contract assets are transferred to receivables when the rights become unconditional according to the contract.

The contract liabilities primarily relate to the advance received from customers for heat sales and heating pipeline upfront fees. The contract liabilities of RMB299 million (2023: RMB309 million) at the beginning of the year has been recognised as revenue of heating pipeline service in 2024. The contract liabilities of RMB2,930 million (2023: RMB2,745 million) at the beginning of the year has been recognised as revenue of heat sales in 2024.

(i) The transaction prices allocated to remaining performance obligations (unsatisfied or partially unsatisfied) related to heating pipeline upfront fees are as follows:

	As at 31 December	
	2024	2023
Within 1 year	**279,892**	327,640
Over 1 year	**3,171,583**	2,478,695
Total (Note 26)	**3,451,475**	2,806,335

The transaction prices allocated to the above remaining performance obligations expected to be recognised in more than one year relate to the provision of heating pipeline services, of which the performance obligations are to be satisfied within 17 years. All the other amounts of transaction prices allocated to the remaining performance obligations are expected to be recognised as revenue within one year. The amount disclosed above does not include variable consideration which is constrained.

(ii) Performance obligations

The Group has elected the practical expedient of not disclosing the remaining obligation excluding heating pipeline upfront fees. As allowed by IFRS 15, no information is provided about the performance obligations at 31 December 2024 that have an original expected duration of one year or less.

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6 PROFIT BEFORE INCOME TAX EXPENSE

Profit before income tax expense was determined after charging/(crediting) the following:

	For the year ended 31 December	
	2024	2023
Total interest expense	**8,658,252**	9,626,031
Less: amounts capitalised in PPE	**871,792**	687,947
Interest expense charged to the consolidated statement of profit or loss and other comprehensive income	**7,786,460**	8,938,084
Including: Interest expense on lease liabilities	**296,106**	255,306
Depreciation of property, plant and equipment	**25,184,490**	24,679,041
Depreciation of investment properties	**26,059**	24,541
Depreciation of right-of-use assets	**1,091,219**	788,698
	26,301,768	25,492,280
Included in other investment gain		
– Loss/(gain) from disposal of investments in associates and subsidiaries	**4,103**	(1,926,775)
– Dividends on other equity instrument investments	**(761)**	(835)
– Others	**(7,989)**	(2,802)
	(4,647)	(1,930,412)

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6 PROFIT BEFORE INCOME TAX EXPENSE (CONTINUED)

	For the year ended 31 December	
	2024	2023
Included in other operating expenses:		
– Operating expense of Ruyi Pakistan Energy	**1,925,195**	2,365,674
– Service concession construction cost	**–**	3,802
– Other materials expense	**1,584,670**	1,805,231
– Electricity charges	**840,774**	919,282
– Cost of sales of raw materials	**1,166,569**	758,320
– Water charges	**583,581**	577,699
– Insurance expense	**546,510**	483,186
– Cleaning, greening and fire protection expense	**412,926**	399,362
– Purchase of power generation quota	**–**	29,338
– Transportation allowance	**207,237**	208,975
– Pollutant charge and carbon emission trading cost*	**387,035**	85,528
– Water conservancy fund and disabled security fund	**134,229**	118,746
– Test and inspection expense	**386,804**	310,665
– Service charge	**1,086,861**	961,806
– Heating pipeline related cost	**159,397**	147,874
– Auditors' remuneration-audit services	**56,033**	44,025
– Other consulting expense	**148,899**	131,176
– Office expense	**241,620**	303,218
– Minimum lease payments under operating leases, lease payments not included in the measurement of lease liabilities	**530,499**	294,148
– Amortisation of other non-current assets	**114,893**	239,480
– Property management expense	**139,258**	145,124
– Information technology maintenance expense	**133,975**	278,885
– Travel expense	**198,512**	181,276
– Business entertainment expense	**32,741**	36,476
– Research and development expenditure	**1,524,082**	1,321,050
– Net loss on disposal of non-current assets	**594,377**	354,812
– Recognition of provision for inventory obsolescence (Note 16)	**43,076**	40,781
– Impairment loss on property, plant and equipment (Note 7)	**1,610,720**	2,735,886
– Impairment loss on goodwill	**–**	295,001
– Impairment loss on other non-current assets**	**60,344**	65,234
– Gain on Three Supplies and Property Management	**–**	(11,048)
– Government grants***	**(120,719)**	(1,231,671)
– Donations	**65,165**	73,310
– Penalty	**106,020**	94,555
– Safety production expense	**1,640,000**	1,527,681
– Others	**1,742,183**	1,670,450
Total	**18,283,466**	17,765,337

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6 PROFIT BEFORE INCOME TAX EXPENSE (CONTINUED)

* The Group receives free quotas of carbon emission rights from the government on an annual basis and recognises the received free quota at the nominal amount (i.e., nil). When the annual actual emissions exceed the free quota of carbon emission rights, the Group should purchase the quota of carbon emission rights from other parties and recognises the emission costs as other operating expenses.

** In 2024, the impairment loss on other non-current assets included impairment losses of RMB36.29 million on pre-construction cost and an impairment loss of RMB4.91 million on the Company's investment in an associate, an impairment loss of RMB17.75 million on right-of-use assets and an impairment loss of RMB1.39 million on intangible assets recognised in other non-current assets.

*** In 2024, the government grants related to income mainly included heat supply subsidy of RMB304 million (2023: RMB234 million), thermal coal subsidy of RMB315 million (2023: RMB368 million), VAT reduction and rebate of RMB164 million (2023: RMB165 million) and environmental subsidy of RMB144 million (2023: RMB126 million). In 2024, the government grant recognised in prior years that is expected to be returned by Huaneng Power International,Inc. Jining Power Plant ("Jining Power Plant") is RMB1,097 million (2023: Nil). Please refer to Note 27 for details.

7 PROPERTY, PLANT AND EQUIPMENT

	Dams	Port facilities	Buildings	Electric utility plant in service	Transportation facilities	Others	CIP	Total
As at 1 January 2023								
Cost	2,222,549	3,980,959	16,286,556	596,521,418	1,353,432	9,796,770	45,323,413	675,485,097
Accumulated depreciation	(477,419)	(894,199)	(6,440,023)	(297,442,573)	(740,875)	(6,188,936)	–	(312,184,025)
Accumulated impairment losses	(459,602)	(439,190)	(391,445)	(23,579,096)	(782)	(109,545)	(2,194,890)	(27,174,550)
Net book value	1,285,528	2,647,570	9,455,088	275,499,749	611,775	3,498,289	43,128,523	336,126,522
Year ended 31 December 2023								
Beginning of the year	1,285,528	2,647,570	9,455,088	275,499,749	611,775	3,498,289	43,128,523	336,126,522
Additions	–	261	25,836	2,112,028	338	114,985	58,701,682	60,955,130
Transfer from CIP	–	13,443	251,116	43,400,805	2,837	350,256	(44,018,457)	–
Other additions	–	–	32,803	189,181	–	28,636	–	250,620
Reclassification to investment property	–	–	(7,645)	–	–	–	–	(7,645)
Disposals/write-off	–	–	(3,427)	(314,908)	(153)	(3,746)	–	(322,234)
Disposal of a subsidiary	–	–	–	(116,199)	–	(2,556)	–	(118,755)
Depreciation charge	(33,788)	(116,350)	(498,342)	(23,686,475)	(56,634)	(575,051)	–	(24,966,640)
Impairment charge	–	–	(27,732)	(2,673,398)	–	(11,167)	(23,589)	(2,735,886)
Reclassification	81,534	8,811	(1,017,168)	1,043,630	(132,204)	15,397	–	–
Other decrease	–	(27,756)	(61,540)	(629,340)	–	(1,986)	–	(720,622)
Currency translation differences	–	–	–	213,111	–	65	2,153	215,329
End of the year	1,333,274	2,525,979	8,148,989	295,038,184	425,959	3,413,122	57,790,312	368,675,819
As at 1 January 2024								
Cost	2,353,642	4,038,384	15,403,101	638,861,202	1,178,155	10,073,054	59,971,856	731,879,394
Accumulated depreciation	(560,766)	(1,073,215)	(6,866,260)	(318,463,566)	(751,413)	(6,554,750)	–	(334,269,970)
Accumulated impairment losses	(459,602)	(439,190)	(387,852)	(25,359,452)	(783)	(105,182)	(2,181,544)	(28,933,605)
Net book value	1,333,274	2,525,979	8,148,989	295,038,184	425,959	3,413,122	57,790,312	368,675,819

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7 PROPERTY, PLANT AND EQUIPMENT (CONTINUED)

	Dams	Port facilities	Buildings	Electric utility plant in service	Transportation facilities	Others	CIP	Total
Year ended 31 December 2024								
Beginning of the year	1,333,274	2,525,979	8,148,989	295,038,184	425,959	3,413,122	57,790,312	368,675,819
Acquisition	–	–	94,957	1,219,480	–	94,179	–	1,408,616
Additions	–	–	5,530	968,286	28,602	148,103	59,421,080	60,571,601
Transfer from CIP	4,594	9,840	361,576	44,023,951	8,384	891,223	(45,299,568)	–
Other additions	–	–	117,092	73,363	–	6,478	–	196,933
Reclassification to investment property	–	–	(1,537)	–	–	–	–	(1,537)
Disposals/write-off	–	–	(14,179)	(257,956)	(1,177)	(11,964)	–	(285,276)
Depreciation charge	(40,637)	(141,793)	(589,987)	(24,004,271)	(65,818)	(549,809)	–	(25,392,315)
Impairment charge	(210,252)	–	(99,061)	(1,222,432)	(165)	(11,565)	(67,245)	(1,610,720)
Reclassification	(49,645)	–	144,741	(104,405)	44	9,265	–	–
Other decrease	–	–	(61,494)	(506,420)	(29)	(1,830)	–	(569,773)
Currency translation differences	–	–	–	(57,406)	–	801	(282)	(56,887)
End of the year	1,037,334	2,394,026	8,106,627	315,170,374	395,800	3,988,003	71,844,297	402,936,461
As at 31 December 2024								
Cost	2,285,532	4,048,224	16,123,673	680,905,414	1,205,637	10,988,060	74,087,806	789,644,346
Accumulated depreciation	(578,344)	(1,215,008)	(7,518,137)	(339,728,594)	(808,846)	(6,885,309)	–	(356,734,238)
Accumulated impairment losses	(669,854)	(439,190)	(498,909)	(26,006,446)	(991)	(114,748)	(2,243,509)	(29,973,647)
Net book value	1,037,334	2,394,026	8,106,627	315,170,374	395,800	3,988,003	71,844,297	402,936,461

Interest capitalization

Interest expense of approximately RMB872 million (2023: RMB688 million) arising on borrowings for the construction of property, plant and equipment was capitalised during the year and was included in 'Additions' in property, plant and equipment. The weighted average capitalisation rate was approximately 2.57% (2023: 3.01%) per annum.

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7 PROPERTY, PLANT AND EQUIPMENT (CONTINUED)

Security

As at 31 December 2024 and 2023, certain property, plant and equipment were pledged to banks as collateral for short-term loans (Note 30) and long-term loans (Note 24).

Buildings without ownership certificates

At 31 December 2024, the Group was in the process of applying for the ownership certificates for certain buildings (buildings for power generation were included in electric utility plant in service) with an aggregate net book value of RMB3,889 million (2023: RMB3,433 million). Management is of the opinion that the Group is entitled to lawfully and validly occupy and use of the abovementioned buildings. There have been no litigations, claims or assessments against the Group for compensation with respect to the use of these buildings as at the date of approval of these financial statements.

Impairment

Note 1: Impairment of CGUs

For each CGU with indicator of impairment, the Group determines the recoverable amount based on the discounted future cash flows of the CGU and performs impairment test for each CGU accordingly. In 2024, impairment losses of PPE amounting to RMB1,611 million were recognised, including RMB1,406 million of PPE, RMB18 million of right-of-use assets and RMB1 million of intangible assets for four CGUs disclosed in the table below and RMB205 million for other individual fixed assets. The details are as follows:

	30 September 2024*		Impairment provision (RMB million)	
Company name	**Net book value of CGUs before impairment (RMB million)**	**Recoverable amount (RMB million)**	**2024**	**2023**
Jining Power Plant (a)	865	138	727	188
Huaneng Jilin Power Generation Co., Ltd. Nong'an Biomass Power Plant ("Nong'an Power Plant") (b)	493	84	409	–
Total	1,358	222	1,136	188

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7 PROPERTY, PLANT AND EQUIPMENT (CONTINUED)

Impairment (Continued)

Note 1: Impairment of CGUs (Continued)

	31 December 2024**		Impairment provision (RMB million)	
Company name	Net book value of CGUs before impairment (RMB million)	Recoverable amount (RMB million)	2024	2023
Huaneng Liaoning Clean Energy Co., Ltd. Suzihe Hydropower Plant ("Suzihe Hydropower Plant") (c)	244	26	218	–
Huaneng Sihong New Energy Co., Ltd. ("Sihong New Energy") (d)	391	320	71	–
Total	635	346	289	–

* The Company identified the impairment indicators for the relevant CGUs of Jining Power Plant and Nong'an Power Plant in September 2024, and conducted impairment tests as at 30 September 2024. As at 31 December 2024, no further impairment indicators were identified, therefore no impairment tests were performed accordingly.

** The Company identified the impairment indicators for the relevant CGUs of Suzihe Hydropower Plant and Sihong New Energy in December 2024, and conducted impairment tests as at 31 December 2024.

(a) Jining Power Plant

1) Background of CGUs with impairment provision

Jining Power Plant operates 2x135MW and 2x350MW coal-fired generation units in Jining city, which were put into operation in 2003 and 2009 respectively. In 2023, the 2x135MW generation units were shut down. In 2024, the total installed capacity of Jining Power Plant was 700MW.

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7 PROPERTY, PLANT AND EQUIPMENT (CONTINUED)

Impairment (Continued)

Note 1: Impairment of CGUs (Continued)

(a) Jining Power Plant (Continued)

2) Reasons for impairment

Reasons for impairment recognised in 2023

All these 4 generation units were shut down for standby since November 2020 as required by Jining Municipal Government. Pursuant to the request of Jining Municipal Government, the Group shall formally shut down the aforementioned 4 generation units, upon the completion of construction and power on-grid of another 2x600MW ultra-supercritical or other high-efficiency environmental generation units. In 2020, Jining Municipal Government agreed to compensate the loss arising from the shut down for standby incurred by Jining Power Plant. In January 2021, Huaneng Shandong Power Generation Co., Ltd. ("Shandong Power") and Jining Municipal Government entered into an agreement stipulating that Shandong Power will obtain compensation for demolition and relocation from Jining Municipal Government. Since the agreed compensation amount is more than the carrying amount of the CGU, there was no need to make provision for impairment for the two 350MW coal-fired power generation units in 2023.

In 2023, Jining Power Plant planned to scrap the above two 135MW coal-fired power units. Based on the recoverable amounts assessed by Beijing Tianjian Xingye Asset Evaluation Co., Ltd., impairment losses of RMB188 million were recognised for the above assets.

Reasons for impairment recognised in 2024

For the year ended 31 December 2024, according to relevant policy requirements, the National Energy Administration has not approved the shut down of the two 350MW coal-fired power units of Jining Power Plant, and thus the demolition and relocation of Jining Power Plant has not been proceeded as planned.

In September 2024, Jining Municipal Government sent a letter of notice to Shandong Power about the proposed termination of the previous entered agreement with Shandong Power with regards to the demolition and relocation of Jining Power Plant as it believed that the demolition and relocation of Jining Power Plant could not be achieved due to various reasons. Meanwhile, Jining Municipal Government also requested Shandong Power to return the previously received compensation of demolition and relocation. Accordingly, Shandong Power assessed that the expected operation result of Jining Power Plant could not meet the expectation because there was no compensation for Jining Power Plant in the future, there were impairment indicators of the above assets as at 30 September 2024.

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7 PROPERTY, PLANT AND EQUIPMENT (CONTINUED)

Impairment (Continued)

Note 1: Impairment of CGUs (Continued)

(a) Jining Power Plant (Continued)

3) Assumptions of impairment assessment

In 2024, the Company performed impairment assessment on the above-mentioned CGUs. The key assumptions used in estimating the recoverable amounts of the CGUs include future sales volume (power generation hours), fuel prices and discount rate (Note 2). Other main assumptions applied in the impairment assessment is average tariff. Key assumptions are listed in the following table:

Company name	Sales volume (power generation hours) Unit: hours/year		Tariff (excluding tax) Unit: RMB/MWh		Fuel prices (price of standard coal into the furnace)* Unit: RMB/ton	
	Forecast period	Actual in 2024	Forecast period	Actual in 2024	Forecast period	Actual in 2024
Jining Power Plant	2025 and afterwards: 2,400	2,362	2025: 505.95 2026: 498.28 2027: 490.62 2028: 482.96 2029 and afterwards: 482.96	514.96	2025: 927.69 2026: 895.38 2027: 863.07 2028: 830.75 2029 and afterwards: 830.75	975.76

* Standard coal refers to coal with a calorific value of 7,000 kcal/kg.

Note: The Group set a single power plant as a CGU, and forecasted the impairment assumptions by each power generation unit in the CGU.

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7 PROPERTY, PLANT AND EQUIPMENT (CONTINUED)

Impairment (Continued)

Note 1: Impairment of CGUs (Continued)

(a) Jining Power Plant (Continued)

3) Assumptions of impairment assessment (Continued)

Sales volume (power generation hours)

The Company estimated the power generation hours in the forecast period based on the market condition and the relevant power trading policies, as well as the generation efficiency of the units.

According to the "14th Five-Year Plan" of Electrical Power Development in Shandong Province, the incremental electricity consumption of the whole society in Shandong Province during the forecast period shall demonstrate an annual incremental rate of about 4.1%. Although the proportion of coal-fired power generation in the total social power generation is expected to decrease from 68.5% in 2020 to 60.0% in 2025, the total electricity volume of coal-fired power generation in 2025 is still expected to demonstrate an upward trend compared to that of 2020. Meanwhile, according to the "14th Five-Year Plan" of Electrical Power Development in Shandong Province, the total installed coal-fired capacity shall be kept at around 100 million kW in 2025, which was expected to remain basically unchanged with the installation amount of 103 million kW as of year 2020. Therefore, the electricity volume generated by incremental installation capacity from new energy power plants and power supply from the outside of the province can be eliminated from the incremental demand of electricity consumption in Shandong Province. The electricity volume generated by coal-fired power plants is expected to remain stable during the forecast period.

The two 350MW power units of Jining Power Plant are both subcritical units with high coal consumption compared to units with the same installed capacity. It is expected to start up only during peak electricity consumption in summer and when the grid load demand is tight. Meanwhile, there is no heating business in Jining Power Plant. Combined with the adjustment of power supply structure in Shandong Province, the overall power generation hours of Jining Power Plant are expected to maintain 2,400 hours, which is basically the same as the actual hours in 2024.

Fuel prices (price of standard coal into the furnace)

The Company estimated the fuel prices in the forecast period based on the coal's source structure, supply and demand situation, as well as the relevant industry policies.

Since 2024, the contradiction between supply and demand in the domestic coal market has continued to ease and the supply and demand situation has continued to be loose, with the overall coal price showing a downward trend. The price of 5,500 kcal thermal coal in Qinhuangdao port fell by 11% from the highest of RMB921/ton at the beginning of 2024 to lowest of RMB817/ton in mid April. In May 2024, the demand for restocking increased, and the price of thermal coal rebounded. In the third quarter, hydropower continued to robust, squeezing the supply of thermal power. The demand for thermal coal weakened again, and the price of thermal coal fell. After the reduction of water volume in September 2024, the demand for thermal power increased, the price of thermal coal strengthened slightly and fell again in October 2024. By the end of December 2024, the price of 5,500 kcal thermal coal in Qinhuangdao fell back to RMB767/ton, 12% lower than that at the end of September 2024. In 2024, the average price of 5,500 kcal thermal coal in Qinhuangdao port was RMB862/ton, decreased by 11% yearly.

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7 PROPERTY, PLANT AND EQUIPMENT (CONTINUED)

Impairment (Continued)

Note 1: Impairment of CGUs (Continued)

(a) Jining Power Plant (Continued)

3) Assumptions of impairment assessment (Continued)

Fuel prices (price of standard coal into the furnace) (Continued)

In 2024, the coal prices were still higher than the rational price range of RMB570/ton-770/ton specified in *Circular on Further Improving the Coal Market Price Formation Mechanism* (NDRC Price[2022] No.303) (hereinafter referred to as "Document No.303") issued by the National Development and Reform Commission (the "NDRC") in February 2022. The Company expected that the price of thermal coal will gradually return to the above rational range in the long run for the following reasons:

a) In terms of coal supply, from the perspective of the current market and policy environment, the safe and stable supply of energy in line with the national conditions has been paid more attention. With the approval of the capacity increase of coal production and the intensity of the putting into production of new coal mines kept unchanged, the capacity and output of coal will be both enhanced, and the supply capacity of coal will increase in the future. In 2024, the output of raw coal from industries above designated size reached a record high of 4.76 billion tons, increased by 1.3% yearly. In 2024, Xinjiang's raw coal output was 541 million tons, with an increase rate of 17.5% ranking first among major coal producing provinces and regions in China for four consecutive years. In 2024, 540 million tons of coal were imported, increased by 14.4% yearly.

b) In terms of coal consumption, although coal fired power generation being treated as ballast stones has become valuable gradually, the growth rate of coal consumption will be restrained under the trend of rapid development of clean energy. According to *Modern Energy System Plan of 14th Five-year Plan* issued by the NDRC and National Energy Administration (the "NEA") on 29 January 2022, the growth of coal consumption will be strictly controlled. And according to the *Opinions of the Central Committee of the CPC and the State Council on Comprehensively Promoting the Construction of a Beautiful China* released on 11 January 2024, which put forward a plan to implement carbon emission peak and carbon neutrality, to strive to achieve carbon emission peak before 2030 in steps, and to lay the foundation for efforts to achieve carbon neutrality before 2060, the government authorities will focus on controlling the consumption of coal and other fossil fuels, strengthen the clean and efficient use of coal, vigorously develop non-fossil fuels, and speed up the construction of a new power system. Under the background of increasing supply and controlled consumption, the coal supply and demand will gradually improve.

c) In recent years, the government authorities had implemented a series of policies to ensure supply and stabilize prices of coal market. For example, by continuing to strengthen the supervision and inspection of the implementation of medium and long-term coal contracts, it was expected to promote the price of thermal coal to return to the rational range.

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7 PROPERTY, PLANT AND EQUIPMENT (CONTINUED)

Impairment (Continued)

Note 1: Impairment of CGUs (Continued)

(a) Jining Power Plant (Continued)

3) Assumptions of impairment assessment (Continued)

Fuel prices (price of standard coal into the furnace) (Continued)

The Company took a holistic view on factors such as the implementation period of the aforementioned national policies, and the time for the commencement of the operation of the newly increased coal production capacities, combining factors such as the coal consumption structure, coal sources, and transportation modes of individual power plants, and estimated that even though there may be repeated imbalances between the coal supply and demand, expecting that coal prices would gradually fall from the current high level to the rational range as specified in Document No.303.

Regarding the coal prices in the long run, the Company reckoned that the domestic coal market can achieve a balanced supply and demand in the future. According to the statistics, there existed a strong correlation and fitting degree between the historical price trend of thermal coal of the Group in various regions and the price index of Qinhuangdao port thermal coals (5,500 kcal) in the past decade. From the perspective of a longer period, the coal in the past decade have experienced a period that featured the combination of relatively loose supply and relatively tight supply. As coal prices are intricate and are subject to periodic fluctuation, the forecasted long-term coal prices were based on the past average 10-year historical coal procurement prices of individual power plant, and the coal price of Jining Power Plant is expected to gradually fall to RMB830.75/ton.

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7 PROPERTY, PLANT AND EQUIPMENT (CONTINUED)

Impairment (Continued)

Note 1: Impairment of CGUs (Continued)

(a) Jining Power Plant (Continued)

3) Assumptions of impairment assessment (Continued)

Tariff (excluding tax)

Based on relevant national policies and regional electricity trading policies, the Company estimated the average tariff in the forecast period with reference to the current tariff level and the floating range of benchmark tariff. In November 2023, the *Circular on the Establishment of a Coal-fired Power Capacity Electricity Tariff Mechanism* (NDRC [2023] No. 1501) (hereinafter referred to as "Document No.1501") required the current single tariff for coal electricity to be adjusted to a two-part tariff and a coal electricity capacity pricing mechanism to be established from 1 January 2024. In accordance with the *Notice on Implementing the Circular of NDRC [2023] No. 1501 and Improving the Capacity Electricity Tariff Mechanism in Our Province* (Lu Fa Gai Price [2023] No.1022), jointly issued by Shandong Development and Reform Commission, NEA, Shandong Energy Regulation Office of NEA and Energy Administration of Shandong Province, the capacity tariff for coal-fired power in Shandong for the years 2024–2025 shall be determined based on the recovery of 30% of the fixed costs of coal-fired power units. The standard is set at RMB100/KW per year (inclusive of tax). At the same time, efforts will be made to strengthen the integration of the current market-oriented capacity compensation tariff mechanism in Shandong with the coal-fired capacity tariff mechanism. The current market-oriented capacity compensation tariff collection standard for users will be temporarily adjusted from RMB0.0991/KWh (inclusive of tax) to RMB0.0705/KWh (inclusive of tax).

The Company's forecast of tariff takes into account both the capacity tariff and the energy tariff. The capacity tariff is forecasted based on Document No.1501 and the current capacity compensation tariff mechanism in Shandong Province. The capacity compensation amount is projected, and the capacity tariff is calculated based on future power generation volumes. At the same time, the requirements of coal and electricity price transmission can be effectively realised by combining the provisions of reasonably setting the feed-in tariff and coal medium and long term transaction price linkage in the electricity medium and long term transaction contract mentioned in Document No. 303. The Company believes that under the two-part tariff system the future tariff is expected to fully reflect the support and adjustment role of coal-power to the whole power grid, and with the decrease of fuel prices to a reasonable range and tend to remain stable, the energy tariff and comprehensive tariff during the forecast period is expected to gradually fall from the current basis back to a stable level.

In September 2024, the recoverable amounts were determined based on the discounted future cash flows of the Jining Power Plant using the assumptions above, and total amounts of impairment losses of RMB727 million for PPE were recognised. The Company engaged Beiing Tianjian Xingye Asset Evaluation Co., Ltd. to independently estimate the recoverable amounts of the above CGU, and the valuation report on the impairment assessment of the CGU was issued.

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7 PROPERTY, PLANT AND EQUIPMENT (CONTINUED)

Impairment (Continued)

Note 1: Impairment of CGUs (Continued)

(b) Nong'an Power Plant

1) Background of CGUs with impairment provision

Nong'an Power Plant operates 30MW and 35MW biomass power generation units, which were put into operation in January 2012 and January 2021 respectively, with a total installed capacity of 65MW.

2) Reasons for impairment

Reasons for no impairment recognised in 2023

Nong'an Power Plant is entitled to renewable energy tariff subsidy for biomass power generation projects, with an on grid price of RMB750/MWh (inclusive of tax), in accordance with the *Circular on Improving the Pricing Policy for Agroforestry Biomass Power Generation* (NDRC Price [2010] No.1579) issued by NDRC. According to the *Supplementary Notice on Issues Related to Several Opinions on Promoting the Healthy Development of Nonaqueous Renewable Energy Power Generation* (CJ [2020] No. 426) (hereinafter referred to as "Document No.426") issued by the Ministry of Finance, NDRC and NEA in 2020, the subsidy tariff for biomass power generation is applicable for a maximum of 82,500 hours or 15 years, whichever is earlier. After that, green certificates will be issued to allow participation in green certificate trading without entitlement of any subsidy tariff. Nong'an Power Plant 1#30MW unit has already reached 82,500 hours in April 2024, and 2#35MW unit is expected to reach this threshold in 2035.

Due to the recent unit fuel costs being higher than the benchmark on-grid electricity price for coal-fired power plants in Jilin Province, and considering the characteristics of clean heating and green electricity supply, Nong'an Power Plant has continuously submitted applications to the relevant government departments since 2020 for an extension of the subsidy tariff period. During the impairment test of the CGU conducted in 2023, the Company estimated that the subsidy tariff could be extended. As a result, the recoverable amount of the CGU was higher than its carrying amount, and thus no impairment provision was provided in 2023.

Reasons for impairment recognised in 2024

On 30 September 2024, Nong'an Power Plant received the *Letter of Reply on Renewable Energy Subsidy Extension* from Nong'an County Development and Reform Commission, in which Nong'an Power Plant's application for extension of the subsidy period was rejected. According to the documents of Nong'an County Development and Reform Commission, the tariff of Nong'an Power Plant after the subsidy's expiry is settled according to the benchmark on-grid electricity price of the provincial coal-fired power plants. In 2024, the benchmark on-grid electricity price was RMB373.10/MWh (inclusive of tax). The loss of Nong'an Power Plant in 2024 was RMB127 million before the impairment provided and it has incurred losses for two consecutive years. Therefore, Nong'an Power Plant identified indicators of impairment and performed impairment assessment on the CGU.

(Amounts expressed in thousands of RMB)

7 PROPERTY, PLANT AND EQUIPMENT (CONTINUED)

Impairment (Continued)

Note 1: Impairment of CGUs (Continued)

(b) Nong'an Power Plant (Continued)

3) Assumptions of impairment assessment

In 2024, the Company performed impairment assessment on the above-mentioned CGUs. The key assumptions used in estimating the recoverable amounts of the CGUs include future sales volume (power generation hours), fuel prices and discount rate (Note 2). Other main assumptions applied in the impairment assessment is average tariff. Key assumptions are listed in the following table:

Company name	Sales volume (power generation hours) Unit: hours/year		Tariff (excluding tax) Unit: RMB/MWh		Fuel prices (price of standard coal into the furnace)* Unit: RMB/ton	
	Forecast period	Actual in 2024	Forecast period	Actual in 2024	Forecast period	Actual in 2024
Nong'an Power Plant 1#30MW unit	2025 and afterwards: 3,333	1,424	2025 and afterwards: 330.18	388.31	2025: 922.49 2026: 881.02 2027: 839.56 2028: 798.09 2029 and afterwards: 798.09	918.44
Nong'an Power Plant 2#35MW unit	2025–2035: 6,600 2036 and afterwards: 3,300	5,175	2025–2034: 663.72 2035: 554.17 2036 and afterwards: 330.18	662.56	2025: 922.49 2026: 881.02 2027: 839.56 2028: 798.09 2029 and afterwards: 798.09	918.44

* Standard coal refers to coal with a calorific value of 7,000 kcal/kg.

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7 PROPERTY, PLANT AND EQUIPMENT (CONTINUED)

Impairment (Continued)

Note 1: Impairment of CGUs (Continued)

(b) Nong'an Power Plant (Continued)

3) Assumptions of impairment assessment (Continued)

Sales volume (power generation hours)

According to the *Notice on Further Accelerating the Promotion of Comprehensive Utilization of Crop Stalks and Prohibition of Burning* (DREP [2015] No. 2651) (hereinafter referred to as "Document No. 2651") jointly published by the NDRC, the Ministry of Finance, the Ministry of Agriculture and the Ministry of Environmental Protection in 2015, as well as the Regulatory Measures for the *Full Guaranteed Purchase of Renewable Energy Electricity* published by the NDRC in 2024, it is required to strengthen the management of the full guaranteed purchase of renewable energy power generation. The electricity generated by biomass power generation project was purchased in full and put online preferentially.

In April 2024, 1#30MW unit of the Nong'an Power Plant reached a cumulative power generation of 82,500 hours. After the expiration of the biomass power generation subsidy, 1#30MW unit underwent a heat-supply retrofit in 2024 and was managed as a standby unit. Therefore, the actual power generation hours in 2024 were relatively low. After the completion of the heat-supply retrofit of 1#30MW unit, the unit's operation mode was changed to operate only during the heating season, supplying heat through a bulk-sale arrangement. The power generation hours are scheduled on the premise of ensuring the heat supply load, with an estimated annual power generation of approximately 3,333 hours.

In 2024, adverse weather conditions during the fuel storage period led to mould and decay in the fuel fed into the furnace, resulting in a reduced calorific value. This caused intermittent fuel shortages and shutdowns. As a result, the power generation hours of 2#35MW unit in 2024 were lower than normal. Since 2023, 2#35MW unit has successively completed technical renovations, and it is expected that the power generation hours will increase in the future. During the period when 2#35MW unit was entitled to subsidies, its power generation hours are estimated by reference to the average power generation hours of 1#30MW unit over the past 10 years, which is 6,600 hours. After the subsidy period ends, the power generation hours of 2#35MW unit are estimated based on the current operating mode of 1#30MW unit, which is 3,300 hours per annum.

Fuel prices (price of standard coal into the furnace)

Corn straw is the main fuel in Nong'an Power Plant. The fuel price in the forecast period is estimated according to the fuel source structure, straw supply and demand, weather conditions and understanding of straw burning prohibition policy. The historical annual biomass fuel prices fluctuate periodically due to weather conditions. With reference to the average unit price of standard coal consumed in the past decade and taking into account market factors, the unit price of standard coal consumed in the stabilisation period is calculated to be RMB798.09/ton. In 2024, due to the decline in fuel quality and the increase in purchase and storage prices caused by heavy rain and snow, fuel prices were at a high level and will gradually decrease to stable prices in the forecast period.

7 PROPERTY, PLANT AND EQUIPMENT (CONTINUED)

Impairment (Continued)

Note 1: Impairment of CGUs (Continued)

(b) Nong'an Power Plant (Continued)

3) Assumptions of impairment assessment (Continued)

Tariff (excluding tax)

Based on the understanding of relevant national policies and regional electricity trading policies, Nong'an Power Plant combines the provisions of Document No. 426 on subsidised electricity prices for biomass power generation, the current electricity price levels, and the average settlement electricity price for the estimated forecast period of green certificates trading revenue. Since 2021, Jilin Energy Bureau has issued the *Non-Market-Oriented Electricity Allocation Plan* every year to distribute the non-market-oriented electricity volume. According to the *2023 Non-Market-Oriented Electricity Allocation Plan* issued by Jilin Energy Bureau, renewable energy power generation units are given priority in power generation and are guaranteed with electricity on grid in full. Other non-coal-fired thermal power units are purchased through a combination of "guaranteed volume and guaranteed price" and "guaranteed volume with competitive price." The "guaranteed volume and guaranteed price" electricity is prioritised to ensure power supply for residential and agricultural use, while the "guaranteed volume with competitive price" electricity participates in market transactions.

There is no subsidy for 1#30MW unit of Nong'an Power Plant in the forecast period, and the generated electricity is expected to be lower than the non-market-oriented electricity volume. Therefore, it is forecasted based on the current benchmark on-grid electricity price of the provincial coal-fired power plants, which is RMB373.10/MWh (inclusive of tax), with a tax-exempt electricity price of RMB330.18/MWh.

For 2#35MW unit, during the forecast period and up to the expiration of the biomass power generation price subsidy, the subsidised electricity price is RMB750.00/MWh (inclusive of tax), with a tax-exempt electricity price of RMB663.72/MWh. After the subsidy expires in mid-2035, referring to the price of 1#30MW unit, the forecasted electricity price is RMB373.10/MWh (inclusive of tax), with a tax-exempt electricity price of RMB330.18/MWh.

In September 2024, the recoverable amounts were determined based on the discounted future cash flows of the Nong'an Power Plant using the assumptions above, and total amounts of impairment losses of RMB409 million were recognised, including RMB390 million of PPE, RMB18 million of right-of-use asset, and RMB1 million of intangible asset. The Company engaged Beiing Tianjian Xingye Asset Evaluation Co., Ltd. to independently estimate the recoverable amounts of the above CGU, and valuation reports on the impairment assessment of the CGU were issued.

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7 PROPERTY, PLANT AND EQUIPMENT (CONTINUED)

Impairment (Continued)

Note 1: Impairment of CGUs (Continued)

(c) Suzihe Hydropower Plant

1) Background of CGUs with impairment provision

Suzihe Hydropower Plant operates three 12.50MW hydropower generating units with a total installed capacity of 37.50MW. The three generating units were put into operation in June 2012 (2#, 3#) and October 2012 (1#), respectively.

2) Reasons for impairment

Reasons for no impairment recognised in 2023

In order to alleviate the shortage of water resources in the central urban agglomeration of Liaoning Province, the Dahuofang Reservoir Water Transfer Project, a major inter-basin water transfer project, was launched in Liaoning Province in 2003. The project is carried out in two phases: the first phase takes Huanren Reservoir as the starting point, diverts water through the Hun River, passes through an 85 km long tunnel across the Liaodong Mountains, connects to the Suzi River and transfers water to the Dahuofang Reservoir to construct an inter-basin water transfer aorta; Relying on the regulation and storage function of Dahuofang Reservoir, the second phase of the project will build a water transmission and distribution network covering seven cities, and deliver production and living water to Fushun, Shenyang, Liaoyang, Anshan, Yingkou, Panjin and Dalian, comprehensively ensuring the water safety of 20 million people in the urban agglomeration of central Liaoning.

Located in the core section of the water transmission project, Suzihe Hydropower Plant, as a medium-sized water conservancy hub with multiple functions such as power generation, flood control and irrigation, is embedded in the main water transmission line from Huanren to Dahuofang Reservoir in the first phase of the project, and achieves the maximum comprehensive benefits of water resources through cascade development. Suzihe Hydropower Plant is a day-adjusted off-peak power station, and its power generation is mainly affected by the water transfer volume of the first phase of the Dahuofang Reservoir Water Transfer Project.

In 2023, the Company conducted impairment tests in view of the fact that the expected operation result of Suzihe Hydropower Plant could not achieve the expectation and showed signs of impairment. After considering the factors such as the expected increase of water transfer in the water transmission project and the stability of regional electricity price policy, the recoverable amount of the CGU was still higher than its carrying amount and thus no impairment provision was provided in 2023.

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7 PROPERTY, PLANT AND EQUIPMENT (CONTINUED)

Impairment (Continued)

Note 1: Impairment of CGUs (Continued)

(c) Suzihe Hydropower Plant (Continued)

2) Reasons for impairment (Continued)

Reasons for impairment recognised in 2024

In 2024, Liaoning Province had abundant precipitation and entered the wet season, resulting in the continuous high water level operation of Dahuofang Reservoir. In this case, the water storage of Dahuofang Reservoir has fully met the water supply demand of the second phase of Dahuofang Reservoir Water transfer Project, and the demand for river water replenishment from Huanren Reservoir through the Suzihe Hydropower Plant to the Dahuofang Reservoir in the first-phase project has been greatly reduced, resulting in the water transfer volume lower than expectation. As the power generation utilisation hours of Suzihe Hydropower Plant are directly affected by the water transfer volume of the the first-phase project, Suzihe Hydropower Plant recorded operating losses and identified indicators of impairment on the CGU.

To address the water shortage in the northwest of Liaoning Province, the Liaoning Provincial Committee of the Communist Party of China and the People's Government of Liaoning Province constructed a key provincial water transfer project – the Northwest Liaoning Water Supply Project. Both the Northwest Liaoning Water Supply Project and the Dahuofang Reservoir Water Transfer Project draw water from the Huanren Reservoir, and both can connect the Dahuofang Reservoir and the Huanren Reservoir through the Hun River water transfer outlet. The completion and operation of the Northwest Liaoning Water Supply Project has diverted the water resources between the Huanren Reservoir and the Dahuofang Reservoir, forming a competitive situation with the Phase I project of the Dahuofang Reservoir Water Transfer Project, where the Suzihe Hydropower Station is located. In addition, to ensure the water demand of the Liaodong Peninsula, the Liaodong Peninsula Water Resources Allocation Phase I Project was included as one of the 15 major projects in Liaoning Province in the 2024 Liaoning Provincial Government Work Report. The project is based on the existing Biluh River Reservoir in the Liaodong Peninsula for water supply, with a short water transfer distance and low water use cost, which will also lead to a reduced water demand from the Dahuofang Reservoir Water Transfer Project in the Liaodong Peninsula region, and will have a significant impact on the production and operation of the Suzihe Hydropower Plant in the future.

In addition, due to the competition between the Northwest Liaoning Water Supply Project and the first phase of water resources allocation project in Liaodong Peninsula, the cost advantage of the second phase of Dahuofang Reservoir Water Transfer Project is significantly weakened. The Company believes that the water transfer path of Dahuofang Reservoir will mainly rely on the Northwest Liaoning Water Supply Project in the future, and the water transfer through the Suzi River basin will be reduced. Based on the above changes in the business environment and market competition situation, the Company performed impairment test for the CGU of Suzihe Hydropower Plant in 2024.

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7 PROPERTY, PLANT AND EQUIPMENT (CONTINUED)

Impairment (Continued)

Note 1: Impairment of CGUs (Continued)

(c) Suzihe Hydropower Plant (Continued)

3) Assumptions of impairment assessment

In 2024, the Company performed impairment assessment on the above-mentioned CGU. The key assumptions used in estimating the recoverable amounts of the CGUs include future sales volume (power generation hours) and discount rate (Note 2). Other main assumptions applied in the impairment assessment is average tariff. Key assumptions are listed in the following table:

	Sales volume (power generation hours) Unit: hours/year		Tariff (excluding tax) Unit: RMB/MWh	
Company name	**Forecast period**	**Actual in 2024**	**Forecast period**	**Actual in 2024**
Suzihe Hydropower Plant	2025 and afterwards: 612	445	2025 and afterwards: 320.39	320.39

Sales volume (power generation hours)

According to the communication and understanding with relevant water conservancy departments, the first phase of Dahuofang Reservoir Water Transfer Project has been gradually put into operation in all regions since 2015. By the end of 2023, the first phase of the project has been fully completed, marking that the water transfer from Huanren Reservoir to Dahuofang Reservoir has reached a relatively stable operation state. Based on this, the Company expects that the annual water availability will fluctuate less in the future, the water transfer and water consumption will remain stable, and the actual power generation utilization hours of the hydropower plant will also be maintained at the current level.

Based on the five-year average actual power generation utilization hours from 2020 to 2024, the Company estimated that the annual power generation hours in 2025 will be 612 hours. It was expected that the annual utilization hours will remain stable from 2025 onwards. The increase in the estimated power generation hours of Suzihe Hydropower Plant for 2025 and beyond compared to the actual power generation hours in 2024 is mainly due to the continuous high water level of Dahuofang Reservoir, and there was no water transfer in the first phase of Dahuofang Reservoir in 2024, which led to the low power generation of Suzihe Hydropower Plant in this year.

7 PROPERTY, PLANT AND EQUIPMENT (CONTINUED)

Impairment (Continued)

Note 1: Impairment of CGUs (Continued)

(c) Suzihe Hydropower Plant (Continued)

3) Assumptions of impairment assessment (Continued)

Tariff (excluding tax)

The Price Bureau of Liaoning Province issued the *Reply on the on-grid Electricity Price of Huaneng Suzihe Yaojiashan Hydropower Station* on 9 April 2014, according to which the price of electricity sold by Suzihe Hydropower Plant was approved to be RMB330/MWH including tax and RMB320.39/MWH excluding tax. The Company believes that the electricity price will remain stable in the future.

In December 2024, the recoverable amounts were determined based on the discounted future cash flows of the Suzihe Hydropower Plant using the assumptions above, and total amounts of impairment losses of RMB218 million for PPE were recognised. The Company engaged Beiing Tianjian Xingye Asset Evaluation Co., Ltd. to independently estimate the recoverable amounts of the above CGU, and a valuation report on the impairment assessment of the CGU was issued.

(d) Sihong New Energy

1) Background of CGUs with impairment provision

Sihong New Energy operates a 109.4 MW photovoltaic solar power generation unit, which was put into operation in July 2020. In 2024, 38.23 MW of photovoltaic module arrays were dismantled, and it is planned to gradually complete the dismantling of the remaining photovoltaic modules and the relocation of 100.0MW of photovoltaic modules by 2026.

2) Reasons for impairment

Reasons for impairment recognised in 2024

In accordance with relevant environmental protection requirements by the government, Sihong New Energy needs to dismantle and relocate the "Sihong Photovoltaic Power Generation Leading Reward Incentive Base Project No. 4 of 2019" that it operates. In 2024, Sihong New Energy has completed the dismantling of 38.23MW of photovoltaic module arrays and related power generation facilities. The estimated total investment for dismantling and relocating in future period is RMB58.18 million. Affected by the relocation, the power generation volume has decreased in 2024 compared to last year, resulting in operating losses for the first time. Therefore, Sihong New Energy identified indicators of impairment and performed impairment assessment on the CGU.

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7 PROPERTY, PLANT AND EQUIPMENT (CONTINUED)

Impairment (Continued)

Note 1: Impairment of CGUs (Continued)

(d) Sihong New Energy (Continued)

3) Assumptions of impairment assessment

In 2024, the Company performed impairment assessment on the above-mentioned CGU. The key assumptions used in estimating the recoverable amounts of the CGUs include future sales volume (power generation hours) and discount rate (Note 2). Other main assumptions applied in the impairment assessment is average tariff. Key assumptions are listed in the following table:

	Sales volume (power generation hours) Unit: hours/year		Tariff (excluding tax) Unit: RMB/MWh	
Company name	**Forecast period**	**Actual in 2024**	**Forecast period**	**Actual in 2024**
Sihong New Energy	2025: 1,296 2026至2041: Decreasing by about 7 hours each year 2042 and afterwards: 1,182	1,022	2025 and afterwards: 369.20	369.20

Sales volume (power generation hours)

The Company estimates the photovoltaic degradation rate based on the feasibility study report and historical power generation data. The power generation utilisation hours are calculated year by year based on an initial photovoltaic degradation rate of 2.50% in the first year of operation, an increase of 0.50% in the degradation rate in the following year, and a maximum degradation rate of 13.38%. In 2024, the actual power generation utilisation hours were relatively low due to the impact of dismantling. For 2025 and 2026, considering the progress of the project relocation and installation, the online power generation is predicted based on the actual installed capacity and power generation hours of the operating power generation units.

Tariff (excluding tax)

According to the *2019 Competitive Optimization Work Plan of the Sihong Photovoltaic Power Generation Leading and Incentive Base*, Sihong New Energy enjoys a government-approved tariff of RMB400/MWh (inclusive of tax) by the Sihong County People's Government in September 2019. Among this, the benchmark on-grid tariff is RMB391/MWh (inclusive of tax), the subsidy tariff is RMB9/MWh (inclusive of tax), and it is also eligible to participate in green power transactions. With the changes in the installed capacity structure of Jiangsu Province and the increasing proportion of new energy power generation enterprises, the Company expects that the green power transaction price will remain relatively stable in the short term. Based on the tariff level in 2024, the average tax-excluded tariff per year during the forecast period is predicted to be RMB369.20/MWh.

(Amounts expressed in thousands of RMB)

7 PROPERTY, PLANT AND EQUIPMENT (CONTINUED)

Impairment (Continued)

Note 1: Impairment of CGUs (Continued)

(d) Sihong New Energy (Continued)

3) Assumptions of impairment assessment (Continued)

In December 2024, the recoverable amounts were determined based on the discounted future cash flows of the Sihong New Energy using the assumptions above, and total amounts of impairment losses of RMB71 million for PPE were recognised. The Company engaged Beiing Tianjian Xingye Asset Evaluation Co., Ltd. to independently estimate the recoverable amounts of the above CGU, and a valuation report on the impairment assessment of the CGU was issued.

Note 2: Discount rate

The Company determined the after-tax discount rates on 30 September 2024 and 31 December 2024 based on the weighted average cost of capital (WACC).

The calculating formula of the WACC is: WACC = Ke × (E/(D+E)) + Kd × (1-T) × (D/(D+E)). D is the value of debt and E is the value of equity. Among which, the cost of equity is calculated by using the capital asset pricing model ("CAPM"), equals to risk-free return on investment ("risk-free rate") plus the return premium reflecting an entity's risk ("risk premium"), namely: Ke = Rf + β × ERP + ε. The value of each parameter is shown in the table below:

Parameters		Amount (30 September 2024)	Amount (31 December 2024)	Remarks
Rf	Risk-free interest rate	2.15%	1.68%	The risk-free interest rate is expressed as the yield to maturity of all treasury bonds with a remaining maturity of 10 years from the base date (30 September 2024 and 31 December 2024) of assets valuation provided by China Central Depository & Clearing Co., Ltd. and the data is sourced from the China Appraisal Society website: http://www.cas.org.cn/.
β	β Coefficient	0.2864-0.3183	0.2627–0.4749	Based on the average value (30 September 2024 and 31 December 2024) of the beta coefficient of comparable companies without financial leverage.
ERP	Equity Risk Premiums	7.41%	6.84%	The rate of return on investment of the Chinese stock market is based on the historical CSI 300 Index, which is calculated by selecting monthly CSI 300 index as at the base date (30 September 2024 and 31 December 2024) of valuation through Wind information market database and using the 10-year moving arithmetic average method in the calculation.
ε	Specific Risk Premium Rate	3.00%-5.00%	2.00%-4.00%	Use the comprehensive analysis method to determine the specific risk return rate ε, which means to consider all these factors of the assessed entities such as its asset scale, development stage, market competition status, internal governance structure and capital structure, etc.

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7 PROPERTY, PLANT AND EQUIPMENT (CONTINUED)

Impairment (Continued)

Note 2: Discount rate (Continued)

Parameters		Amount (30 September 2024)	Amount (31 December 2024)	Remarks
Kd	Cost of Debt	3.85%	3.60%	Take the five-year above loan prime rate (LPR) (30 September 2024 and 31 December 2024) as the cost of debt.
T	Income Tax Rate	15%-25%	12.5%-25%	Determine the applicable income tax rate according to the Corporate Income Tax Law.

When the after-tax discount rate is calculated, the pre-tax discount rate is determined through an iterative loop calculation based on the assumption of "present value of cash flow before tax = present value of cash flow after tax". As a result of the calculation, the Company adopts pre-tax discount rates ranging from 6.35% to 6.57% on 30 September 2024 and 6.28% to 7.38%% on 31 December 2024.

Note 3: Impairment losses for individual fixed assets

Each year, the Company performs impairment assessment of the individual fixed assets in a timely manner, based on arrangements of current year industry policies, such as the shutting down of certain power plants, demolition of certain generation units for the purpose of technical transformation. The details for impairment losses recognised for such kind of fixed assets in 2024 are as follows:

Company name	Impairment recognised (RMB million)	Reasons for impairment and operational status before decommissioning
Tuas Power	79	Tuas Power's existing wastewater treatment plant was built in 2015 to treat wastewater from its customer, Arlanxeo. The contract with Arlanxeo is going to expire, and no other potential customers have been identified. In 2024, Tuas Power completed an economic benefit analysis. If the facility were to be restarted, Tuas Power needs to invest additional capital expenditures for equipment upgrades. Given that the facility is not expected to generate economic benefits, Tuas Power has fully provided for impairment of the wastewater treatment plant, related pipelines, etc with an amount of RMB79 million.

(Amounts expressed in thousands of RMB)

7 PROPERTY, PLANT AND EQUIPMENT (CONTINUED)

Impairment (Continued)

Note 3: Impairment losses for individual fixed assets (Continued)

Company name	Impairment recognised (RMB million)	Reasons for impairment and operational status before decommissioning
Huaneng (Zhejiang) Energy Development Co. Ltd. Changxing Power Plant ("Changxing Power Plant")	26	Based on the management's approval of the capex project plan for electricity production and environmental protection transformation, Changxing Power Plant plans to implement equipment transformation in 2025 with the use of level C+ maintenance, dismantle the damaged equipment of boiler 2#, and based on the impairment assessment conducted by Beijing Tianjian Xingye Asset Evaluation Co., Ltd., impairment losses of RMB26 million were recognised for the assets to be scrapped.
Huaneng (Zhejiang) Energy Development Co. Ltd. Yuhuan Power Plant ("Yuhuan Power Plant")	25	Based on the management's approval of the capex project plan for electricity production and environmental transformation, Yuhuan Power Plant plans to overhaul 2# and 4# units in 2025, renovate and remove some equipment such as air preheater, flue gas cooler and reheater, and demolish the original Yuhuan phase I and phase II overhaul office space based on the 2025 Yuhuan phase IV project construction plan. Based on the impairment assessment conducted by Beijing Tianjian Xingye Asset Evaluation Co., Ltd., impairment losses of RMB25 million were recognised for the assets to be scrapped.
Subtotal of other 8 items	75	
Total	205	

For the impairment test of above individual fixed assets, the Company determined the recoverable amount based on the fair value less costs to sell. The key assumption used in determining the recoverable amount include the price of copper, steel, aluminium, etc., which have been queried by the market. Based on the results of the impairment test, the Company made an impairment loss of RMB205 million on the above-mentioned individual fixed assets.

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8 INVESTMENTS IN ASSOCIATES AND JOINT VENTURES

	For the year ended 31 December	
	2024	2023
Beginning of the year	**22,712,467**	24,015,630
Capital injections in associates and joint ventures	**1,263,419**	632,028
Joint ventures transformed into subsidiaries*	**(67,644)**	(1,600)
Disposal	**(64,067)**	(2,080,810)
Share of profit less loss	**1,259,904**	854,156
Share of other comprehensive loss	**(45,744)**	(17,378)
Share of other capital reserve	**39,205**	(25,928)
Dividends	**(419,748)**	(657,649)
Provision of impairment	**(4,909)**	(5,982)
End of the year	**24,672,883**	22,712,467

* Zilai Renewable Resources Technology (Nanjing) Co., Ltd. ("Zilai Renewable Resources") was previously a joint venture of a subsidiary of the Company, Huaneng Jiangsu Energy Development Co., Ltd. ("Jiangsu Energy Development"), and another shareholder holds its 49% equity interests. Huaneng Production Investment (Fuzhou) Thermal Power Co., Ltd ("Chantou Fuzhou Thermal Power") was previously a joint venture of a subsidiary of the Company, Huaneng (Fujian) Energy Development Co., Ltd. ("Fujian Energy Development"), and the other two shareholders hold its 49% equity interests in total.

According to the voting in concert agreement entered into between Jiangsu Energy Development and the other shareholder of Zilai Renewable Resources in 2024, the other shareholder agreed to vote the same in respect of all the financial and operating decisions made by Jiangsu Energy Development. According to the voting in concert agreement entered into between Fujian Energy Development and the other shareholder with 39% equity interests in in Chantou Fuzhou Thermal Power in 2024, the other shareholder agreed to vote the same in respect of all the financial and operating decisions made by Fujian Energy Development. Accordingly, the Group has control over Zilai Renewable Resources and Chantou Fuzhou Thermal Power and therefore the two joint ventures were accounted for as subsidiaries of the Group in 2024.

Chengde County Rongjian Photovoltaic Power Generation Co., Ltd. ("Chengde Rongjian") was previously a joint venture of a subsidiary of the Company, Huaneng Hebei Clean Energy Co., Ltd. ("Hebei Clean Energy"), and another shareholder holds its 51% equity interests. The other shareholder of Chengde Rongjian voluntarily transfers its equity interests in Chengde Rongjian to Hebei Clean Energy for free. Hebei Clean Energy controls Chengde Rongjian, and Chengde Rongjian was accounted for as a subsidiary of the Group in 2024.

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8 INVESTMENTS IN ASSOCIATES AND JOINT VENTURES (CONTINUED)

As at 31 December 2024, investments in associates and joint ventures of the Group are unlisted except for Shenzhen Energy Corporation Limited ("SECL"), which is listed on the Shenzhen Stock Exchange. The following list contains only the particulars of material associates and joint ventures.

Name	Country of incorporation	Registered capital	Business nature and scope of operation	Percentage of equity interest Direct	Percentage of equity interest Indirect
Associates:					
SECL (Note 1)	PRC	RMB4,757,389,916	Energy and investment in related industries	25.02%	–
Hebei Hanfeng Power Generation Limited Liability Company ("Hanfeng Power")	PRC	RMB1,975,000,000	Power generation	40%	–
Huaneng Finance	PRC	RMB7,000,000,000	Provision of financial service, including fund deposit and lending services, finance lease arrangements, notes discounting and entrusted loans and investment arrangements within Huaneng Group	20%	–
China Huaneng Group Fuel Co., Ltd. ("Huaneng Group Fuel Company") (Note 2)	PRC	RMB3,000,000,000	Wholesale of coal, import and export of coal	50%	–

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8 INVESTMENTS IN ASSOCIATES AND JOINT VENTURES (CONTINUED)

The following list contains only the particulars of material associates and joint ventures. (Continued)

Name	Country of incorporation	Registered capital	Business nature and scope of operation	Percentage of equity interest Direct	Percentage of equity interest Indirect
Hainan Nuclear Power Limited Liability Company ("Hainan Nuclear")	PRC	RMB5,173,109,200	Construction and operation of nuclear power plants; production and sales of electricity and related products	30%	–
Huaneng Shidaowan Nuclear Power Development Co., Ltd. ("Shidaowan Nuclear Power")	PRC	RMB6,243,000,000	Construction of nuclear power plants; production and sales of electricity	22.5%	–
Huaneng Tiancheng Financial Leasing Corporation Limited ("Tiancheng Financial Leasing")	PRC	RMB4,050,000,000	Financial leasing business	20%	–

Note 1 As at 31 December 2024, the fair value of the Group's shares in SECL was RMB7,712 million (31 December 2023: RMB7,676 million). SECL is a listed company on the Shenzhen Stock Exchange. Please refer to its publicly disclosed financial statements for financial data.

Note 2 In accordance with the articles of association of the investee, the Group could only exercise significant influence on the investee and therefore accounted for the investment under the equity method.

All the above associates and joint ventures are accounted for under the equity method in the consolidated financial statements.

(Amounts expressed in thousands of RMB)

8 INVESTMENTS IN ASSOCIATES AND JOINT VENTURES (CONTINUED)

Summarised financial information of the material associates excluding SECL, adjusted for any differences in accounting policies and acquisition adjustments, and reconciliation to the carrying amounts in the consolidated financial statements, are disclosed below:

	Huaneng Finance		Hanfeng Power		Huaneng Group Fuel Company		Hainan Nuclear		Shidaowan Nuclear Power		Tiancheng Financial Leasing	
	2024	2023	**2024**	2023	**2024**	2023	**2024**	2023	**2024**	2023	**2024**	2023
Gross amounts of the associates:												
Current assets	**32,573,750**	28,171,167	**929,097**	1,339,929	**7,287,854**	9,976,253	**2,452,600**	2,204,762	**20,567**	17,459	**17,644,599**	13,615,397
Non-current assets	**25,099,631**	31,425,785	**1,629,855**	1,372,213	**2,909,403**	3,118,367	**16,369,368**	17,159,329	**19,169,877**	15,521,364	**44,922,928**	47,276,930
Current liabilities	**(47,694,066)**	(50,210,748)	**(365,135)**	(538,413)	**(5,644,632)**	(8,397,360)	**(4,685,630)**	(4,602,365)	**(5,653,639)**	(6,952,332)	**(24,733,256)**	(23,947,514)
Non-current liabilities	**(53,963)**	(39,457)	**(64,218)**	(85,162)	**(666,736)**	(812,199)	**(8,988,402)**	(9,786,755)	**(7,258,314)**	(3,241,000)	**(28,345,804)**	(28,068,686)
Equity	**9,925,352**	9,346,747	**2,129,599**	2,088,567	**3,885,889**	3,885,061	**5,147,936**	4,974,971	**6,278,491**	5,345,491	**9,488,467**	8,876,127
– Equity attributable to shareholders	**9,925,352**	9,346,747	**2,129,599**	2,088,567	**3,470,956**	3,481,786	**5,147,936**	4,974,971	**6,278,491**	5,345,491	**7,749,184**	7,215,379
– Non-controlling interests	**–**	–	**–**	–	**414,933**	403,275	**–**	–	**–**	–	**1,739,283**	1,660,748
Revenue	**1,498,457**	1,575,390	**2,450,494**	2,373,016	**57,365,937**	69,912,647	**3,853,463**	3,821,747	**–**	–	**2,838,518**	2,838,724
Gross profit	**705,766**	888,153	**205,901**	253,212	**293,301**	281,016	**836,004**	852,694	**–**	–	**1,377,363**	1,325,403
Net profit/(loss)	**904,949**	465,119	**183,927**	204,644	**(3,764)**	(100,162)	**163,113**	147,897	**–**	35,491	**1,188,857**	1,116,683
Profit/(loss) attributable to shareholders	**904,949**	465,119	**183,927**	204,644	**(14,262)**	(118,452)	**163,113**	147,897	**–**	35,491	**1,188,857**	1,116,683
Other comprehensive income attributable to shareholders	**–**	–	**–**	–	**(1,944)**	13,060	**–**	–	**–**	–	**–**	–
Total comprehensive income attributable to shareholders	**904,949**	465,119	**183,927**	204,644	**(16,206)**	(105,392)	**163,113**	147,897	**–**	35,491	**1,188,857**	1,116,683
Dividend received from the associates	**68,000**	100,000	**61,490**	–	**–**	–	**–**	–	**–**	–	**100,517**	90,073
Reconciled to the interests in the associates:												
Gross amounts of net assets attributable to shareholders of the associates	**9,925,352**	9,346,747	**2,129,599**	2,088,567	**3,470,956**	3,481,786	**5,147,936**	4,974,971	**6,278,491**	5,345,491	**7,749,184**	7,215,379
The Group's effective interest	**20%**	20%	**40%**	40%	**50%**	50%	**30%**	30%	**22.5%**	22.5%	**20%**	20%
The Group's share of net assets attributable to shareholders of the associates	**1,985,070**	1,869,349	**851,840**	835,427	**1,735,478**	1,740,893	**1,544,381**	1,492,491	**1,412,660**	1,202,735	**1,549,837**	1,443,076
Impact of adjustments	**–**	–	**293,082**	293,082	**16,521**	16,521	**14,076**	14,076	**–**	–	**–**	–
Carrying amount in the consolidated financial statements	**1,985,070**	1,869,349	**1,144,922**	1,128,509	**1,751,999**	1,757,414	**1,558,457**	1,506,567	**1,412,660**	1,202,735	**1,549,837**	1,443,076

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8 INVESTMENTS IN ASSOCIATES AND JOINT VENTURES (CONTINUED)

Aggregate information of associates and joint ventures that are not individually material:

	2024	2023
Aggregate carrying amount of individually immaterial associates and joint ventures in the consolidated financial statements	**6,612,329**	5,417,182
Aggregate amounts of the Group's share of those associates and joint ventures		
Profit/(loss)	**292,161**	(11,107)
Total comprehensive income	**301,402**	(5,490)

As at 31 December 2024, the Group's share of losses of associates exceeded its interests in the associates and the unrecognised further losses amounted to RMB671 million (31 December 2023: RMB644 million).

As at 31 December 2024, there were no proportionate interests in the associates' and joint ventures' capital commitments (31 December 2023: Nil). There were no material contingent liabilities relating to the Group's interests in the associates and joint ventures, and the associates and joint ventures themselves.

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9 INVESTMENTS IN SUBSIDIARIES

As at 31 December 2024, the investments in subsidiaries of the Group, all of which are unlisted, are as follows:

Name of subsidiary	Country of incorporation	Type of interest held	Registered capital	Business nature and scope of operations	Percentage of equity interest held		Acquisition method
					Interest	Voting	
Huaneng Shanghai Shidongkou Power Generation Limited Liability Company ("Shidongkou Power") (ii)	PRC	Held directly	RMB1,179,000,000	Electricity, heat production, and supply	50%	100%	Subsidiaries acquired through establishment or investment
Huaneng Qingdao Co-generation Limited Company	PRC	Held directly	RMB1,206,851,045	Electricity, heat production, and supply	100%	100%	Subsidiaries acquired through establishment or investment
Huaneng Taiyuan Dongshan Combined Cycle Co-generation Co., Ltd.	PRC	Held directly	RMB731,710,000	Electricity, heat production, and supply	82%	82%	Subsidiaries acquired through establishment or investment
Huaneng (Dalian) Co-generation Co., Ltd.	PRC	Held directly	RMB1,604,351,769	Electricity, heat production, and supply	100%	100%	Subsidiaries acquired through establishment or investment
Huaneng Yantai new energy Co., Ltd. (i)	PRC	Held indirectly	RMB1,663,602,000	Clean energy power generation	60%	75%	Subsidiaries acquired through establishment or investment
Huaneng Daan Clean Energy Power Co., Ltd. (i)	PRC	Held indirectly	RMB805,800,000	Clean energy power generation	80%	100%	Subsidiaries acquired through establishment or investment
Huaneng Anyang Energy Limited Liability Company	PRC	Held directly	RMB619,600,000	Clean energy power generation	100%	100%	Subsidiaries acquired through establishment or investment

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9 INVESTMENTS IN SUBSIDIARIES (CONTINUED)

Name of subsidiary	Country of incorporation	Type of interest held	Registered capital	Business nature and scope of operations	Percentage of equity interest held		Acquisition method
					Interest	Voting	
Huaneng Abaga Banner Clean Energy Co., Ltd.	PRC	Held directly	RMB322,180,760	Clean energy power generation	100%	100%	Subsidiaries acquired through establishment or investment
Huaneng Henan Puyang Clean Energy Limited Liability Company	PRC	Held directly	RMB1,502,777,000	Clean energy power generation	100%	100%	Subsidiaries acquired through establishment or investment
Huaneng Jiuquan Wind Power Generation Co., Ltd.	PRC	Held directly	RMB3,061,198,800	Clean energy power generation	100%	100%	Subsidiaries acquired through establishment or investment
Huaneng (Zhuanghe) Wind Power Generation Co., Ltd.	PRC	Held indirectly	RMB2,700,000,000	Clean energy power generation	94.07%	94.07%	Subsidiaries acquired through establishment or investment
Fujian Energy Development	PRC	Held directly	RMB4,214,710,512	Electricity, heat production, and supply	100%	100%	Subsidiaries acquired through establishment or investment
Jiangsu Energy Development	PRC	Held directly	RMB15,553,400,000	Electricity, heat production, and supply	100%	100%	Subsidiaries acquired through establishment or investment
Huaneng Taicang Power Generation Co., Ltd.	PRC	Held indirectly	RMB883,899,300	Electricity, heat production, and supply	75%	75%	Subsidiaries acquired through establishment or investment
Huaneng Shengdong Rudong Offshore Wind Power Co., Ltd.	PRC	Held indirectly	RMB2,000,000,000	Clean energy power generation	79%	79%	Subsidiaries acquired through establishment or investment
Huaneng Sheyang New Energy Power Generation Co., Ltd.	PRC	Held indirectly	RMB1,080,000,000	Clean energy power generation	70%	70%	Subsidiaries acquired through establishment or investment

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9 INVESTMENTS IN SUBSIDIARIES (CONTINUED)

Name of subsidiary	Country of incorporation	Type of interest held	Registered capital	Business nature and scope of operations	Percentage of equity interest held		Acquisition method
					Interest	Voting	
Huaneng Guanyun Clean Energy Power Limited Liability Company	PRC	Held indirectly	RMB1,790,020,000	Electricity, heat production, and supply	100%	100%	Subsidiaries acquired through establishment or investment
Huaneng (Guangdong) Energy Development Co., Ltd. ("Guangdong Energy Development")	PRC	Held directly	RMB6,271,001,411	Electricity, heat production, and supply	100%	100%	Subsidiaries acquired through establishment or investment
Huaneng Shantou Haimen Power Generation Limited Liability Company	PRC	Held indirectly	RMB3,455,369,000	Electricity, heat production, and supply	80%	80%	Subsidiaries acquired through establishment or investment
Huaneng Dongguan Ranji Thermoelectric Power Co., Ltd.	PRC	Held indirectly	RMB704,490,000	Electricity, heat production, and supply	80%	80%	Subsidiaries acquired through establishment or investment
Huaneng (Zhejiang) Energy Development Co., Ltd.	PRC	Held directly	RMB6,750,538,481	Electricity, heat production, and supply	100%	100%	Subsidiaries acquired through establishment or investment
Huaneng Zhejiang Pinghu Offshore Wind Power Co., Ltd.	PRC	Held indirectly	RMB2,200,000,000	Clean energy power generation	66.75%	66.75%	Subsidiaries acquired through establishment or investment
Huaneng Zhejiang Cangnan Offshore Wind Power Co., Ltd.	PRC	Held indirectly	RMB11,764,706	Clean energy power generation	85%	85%	Subsidiaries acquired through establishment or investment
Huaneng Nanjing Gas Engine Power Generation Co., Ltd. ("Nanjing Combined Cycle Co-generation") (iii)	PRC	Held indirectly	RMB938,350,000	Electricity, heat production, and supply	57.38%	84.76%	Subsidiaries acquired through establishment or investment

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9 INVESTMENTS IN SUBSIDIARIES (CONTINUED)

Name of subsidiary	Country of incorporation	Type of interest held	Registered capital	Business nature and scope of operations	Percentage of equity interest held		Acquisition method
					Interest	Voting	
Jiyuan Huaneng Energy Sales Co., Ltd. ("Jiyuan Energy Sales") (iv)	PRC	Held indirectly	RMB20,000,000	The sale of electricity, heat, and gas energy products	51%	100%	Subsidiaries acquired through establishment or investment
Huaneng Zhenlai Photovoltaic Power Generation Co., Ltd. ("Zhenlai Photovoltaic Power") (v)	PRC	Held indirectly	RMB26,775,600	Clean energy power generation	50%	100%	Subsidiaries acquired through establishment or investment
Huaneng (Zhejiang Daishan) Offshore Wind Power Co., Ltd. ("Daishan Wind Power") (vi)	PRC	Held indirectly	RMB1,500,000,000	Clean energy power generation	40%	75%	Subsidiaries acquired through establishment or investment
Tongyu Yufeng Xing Village New Energy Co., Ltd. ("Tongyu Yufeng New Energy") (vii)	PRC	Held indirectly	RMB187,500,000	Clean energy power generation	60%	100%	Subsidiaries acquired through establishment or investment
Huaneng (Zhuanghe) Cleaning Energy Co., Ltd. ("Zhuanghe Clean Energy") (viii)	PRC	Held indirectly	RMB1,500,000,000	Clean energy power generation	98%	100%	Subsidiaries acquired through establishment or investment
Huaneng Xiaochang Energy Development Co., Ltd. ("Xiaochang Energy Development".) (ix)	PRC	Held indirectly	RMB338,281,050	Clean energy power generation	90%	100%	Subsidiaries acquired through establishment or investment
Huamin (Tianjin) Energy Partnership (Limited partnership) ("Huamin Tianjin") (x)	PRC	Held indirectly	RMB4,720,000,000	Electricity, heat production, and supply	20%	66.67%	Subsidiaries acquired through establishment or investment
Tianjin Jingchu Electric Power Technology Partnership (Limited partnership) ("Tianjin Jingchu Power") (x)	PRC	Held directly	RMB2,559,743,600	Electricity, heat production, and supply	29.95%	66.67%	Subsidiaries acquired through establishment or investment

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9 INVESTMENTS IN SUBSIDIARIES (CONTINUED)

Name of subsidiary	Country of incorporation	Type of interest held	Registered capital	Business nature and scope of operations	Percentage of equity interest held		Acquisition method
					Interest	Voting	
Tianjin Longxing Power Technology Partnership (Limited partnership) ("Longxing Power") (x)	PRC	Held indirectly	RMB2,800,000,000	Electricity, heat production, and supply	20%	66.67%	Subsidiaries acquired through establishment or investment
Qingdao Huaying Power Technology Partnership (Limited partnership) ("Qingdao Huaying") (x)	PRC	Held indirectly	RMB9,619,000,000	Electricity, heat production, and supply	16.01%	66.67%	Subsidiaries acquired through establishment or investment
Huagan (Tianjin) Energy Partnership Enterprise (Limited Partnership) ("Huagan Tianjin") (x)	PRC	Held directly	RMB4,560,000,000	Electricity, heat production, and supply	20%	66.67%	Subsidiaries acquired through establishment or investment
Huaneng Qingneng Tongyu Power Co., Ltd. ("Tongyu Power") (xi)	PRC	Held indirectly	RMB1,298,584,100	Clean energy power generation	29.71%	100%	Subsidiaries acquired through establishment or investment
Huaneng Yantai Bajiao Thermal Power Limited Company ("Yantai Bajiao") (xi)	PRC	Held indirectly	RMB1,291,720,000	Electricity, heat production, and supply	16.01%	100%	Subsidiaries acquired through establishment or investment
Huaneng Luoyuan New Energy Power Generation Co., Ltd. ("Luoyuan Power") (xi)	PRC	Held indirectly	RMB1,163,100,000	Electricity production and supply	20.01%	100%	Subsidiaries acquired through establishment or investment
Huaneng Rudong Baxianjiao Offshore Wind Power Generation Co., Ltd. ("Rudong Baxianjiao") (xi)	PRC	Held indirectly	RMB1,629,338,700	Clean energy power generation	20.01%	100%	Subsidiaries acquired through establishment or investment

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9 INVESTMENTS IN SUBSIDIARIES (CONTINUED)

Name of subsidiary	Country of incorporation	Type of interest held	Registered capital	Business nature and scope of operations	Percentage of equity interest held		Acquisition method
					Interest	Voting	
Huaneng Yancheng Dafeng New Energy Power Generation Limited Liability Company ("Yancheng Dafeng") (xi)	PRC	Held indirectly	RMB1,841,000,000	Clean energy power generation	20.01%	100%	Subsidiaries acquired through establishment or investment
Huaneng Guangdong Shantou Offshore Wind Power Co., Ltd. ("Shantou Wind Power") (xi)	PRC	Held indirectly	RMB847,070,000	Clean energy power generation	20.02%	100%	Subsidiaries acquired through establishment or investment
Huaneng Laiwu Power Generation Co., Ltd. ("Laiwu Power") (xi)	PRC	Held indirectly	RMB2,340,000,000	Electricity, heat production, and supply	14.87%	92.90%	Subsidiaries acquired from business combinations under common control
Huaneng Daqing Co-generation Limited Company ("Daqing Co-generation") (xi)	PRC	Held indirectly	RMB630,000,000	Electricity, heat production, and supply	20.01%	100%	Subsidiaries acquired from business combinations under common control
Huaneng Anyuan Power Generation Co., Ltd. ("Anyuan Power") (xi)	PRC	Held directly	RMB1,216,687,300	Electricity, heat production, and supply	20.01%	100%	Subsidiaries acquired from business combinations under common control
Huaneng Yingcheng Thermal Power Co., Ltd. ("Yingcheng Thermal Power") (xi)	PRC	Held directly	RMB759,776,000	Power plant construction, operation, management, electricity and heat production and sales	25.03%	100%	Subsidiaries acquired from business combinations under common control
Huaneng Jingmen Thermal Power Co., Ltd. ("Jingmen Thermal Power") (xi)	PRC	Held directly	RMB780,000,000	Thermal power and heat, power development, power services	29.96%	100%	Subsidiaries acquired from business combinations under common control
Huaneng Qinbei Power Generation Co., Ltd.	PRC	Held directly	RMB3,139,965,055	Electricity, heat production, and supply	60%	60%	Subsidiaries acquired from business combinations under common control

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9 INVESTMENTS IN SUBSIDIARIES (CONTINUED)

Name of subsidiary	Country of incorporation	Type of interest held	Registered capital	Business nature and scope of operations	Percentage of equity interest held		Acquisition method
					Interest	Voting	
Huaneng Yushe Power Generation Co., Ltd.	PRC	Held directly	RMB485,017,700	Electricity, heat production, and supply	100%	100%	Subsidiaries acquired from business combinations under common control
Huaneng Hunan Yueyang Power Generation Co., Ltd.	PRC	Held directly	RMB2,018,534,545	Electricity, heat production, and supply	55%	55%	Subsidiaries acquired from business combinations under common control
Huaneng Pingliang Power Generation Co., Ltd.	PRC	Held directly	RMB924,050,000	Electricity, heat production, and supply	65%	65%	Subsidiaries acquired from business combinations under common control
Huaneng Beijing Thermal Power Co., Ltd. ("Beijing Co-generation") (xii)	PRC	Held directly	RMB3,702,090,000	Electricity, heat production, and supply	41%	66%	Subsidiaries acquired from business combinations under common control
Huaneng Chaohu Power Generation Co., Ltd. ("Chaohu Power Generation") (xiii)	PRC	Held directly	RMB840,000,000	Electricity, heat production, and supply	60%	70%	Subsidiaries acquired from business combinations under common control
Huaneng Suzhou Co-generation Co., Ltd. ("Suzhou Thermal Power") (xiv)	PRC	Held indirectly	RMB600,000,000	Electricity, heat production, and supply	53%	100%	Subsidiaries acquired from business combinations under common control
Huaneng Qinmei Ruijin Power Generation Co., Ltd. ("Ruijin Power Generation") (xv)	PRC	Held directly	RMB1,819,846,598	Electricity, heat production, and supply	50%	100%	Subsidiaries acquired from business combinations under common control
Huaneng Rizhao Thermal Power Limited Company (i)	PRC	Held indirectly	RMB52,000,000	Heat Production and Supply	80%	100%	Subsidiaries acquired from business combinations under common control

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9 INVESTMENTS IN SUBSIDIARIES (CONTINUED)

Name of subsidiary	Country of incorporation	Type of interest held	Registered capital	Business nature and scope of operations	Percentage of equity interest held		Acquisition method
					Interest	Voting	
Huaneng Linyi Power Generation Co., Ltd. (i)	PRC	Held indirectly	RMB1,093,313,400	Electricity, heat production, and supply	60%	75%	Subsidiaries acquired from business combinations under common control
Linyi Lantian Thermal Power Limited Company (i)	PRC	Held indirectly	RMB36,000,000	Heat production and supply	54%	68%	Subsidiaries acquired from business combinations under common control
Huaneng Shandong Ruyi Coal-fired Power Generation Limited Company("Ruyi Coal and Power") (xvi)	PRC	Held indirectly	RMB1,294,680,000	Development, investment, construction, operation, and management of electricity and coal	40%	100%	Subsidiaries acquired from business combinations under common control
Tianjin Huaneng Yangliuqing Co-generation Limited Liability Company	PRC	Held directly	RMB1,537,130,909	Electricity, heat production, and supply	55%	55%	Subsidiaries acquired from business combinations under common control
Huaneng Hainan Power Generation Co., Ltd.	PRC	Held directly	RMB2,652,839,174	Electricity, heat production, and supply	91.80%	91.80%	Subsidiaries acquired from business combinations under common control
Huaneng Wuhan Power Generation Co., Ltd.	PRC	Held directly	RMB1,967,578,182	Electricity, heat production, and supply	75%	75%	Subsidiaries acquired from business combinations under common control
Huaneng Hegang Power Generation Co., Ltd.	PRC	Held indirectly	RMB1,092,550,000	Electricity, heat production, and supply	64%	64%	Subsidiaries acquired from business combinations under common control
Huaneng Jilin Power Generation Co., Ltd. ("Jilin Power")	PRC	Held directly	RMB5,939,930,300	Electricity, heat production, and supply	100%	100%	Subsidiaries acquired from business combinations under common control

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9 INVESTMENTS IN SUBSIDIARIES (CONTINUED)

Name of subsidiary	Country of incorporation	Type of interest held	Registered capital	Business nature and scope of operations	Percentage of equity interest held		Acquisition method
					Interest	Voting	
Shandong Power	PRC	Held directly	RMB4,241,460,000	Electricity, heat production, and supply	80%	80%	Subsidiaries acquired from business combinations under common control
Huaneng Nanjing Jinling Power Generation Co., Ltd.	PRC	Held indirectly	RMB1,590,220,000	Electricity, heat production, and supply	60%	60%	Subsidiaries acquired from business combinations under common control
Huaneng Chongqing Luohuang Power Generation Co., Ltd. ("Luohuang Power")	PRC	Held directly	RMB1,748,310,000	Electricity, heat production, and supply	60%	60%	Subsidiaries acquired from business combinations under common control
Huaneng Weihai Power Generation Co., Ltd.	PRC	Held directly	RMB1,822,176,621	Electricity, heat production, and supply	60%	60%	Subsidiaries acquired from business combinations not under common control
Sino Sing Power Pte Ltd..	Singapore	Held directly	US$147,642,058	Electricity production and supply	100%	100%	Subsidiaries acquired from business combinations not under common control
Huaneng Yunnan Diandong Energy Co., Ltd.	PRC	Held directly	RMB10,324,117,034	Investment in power projects, power generation production and sales, investment in and development of coal projects	100%	100%	Subsidiaries acquired from business combinations not under common control
Ruyi Pakistan Energy (xvii)	Pakistan	Held indirectly	US$360,000,000	Electricity production and supply	40%	100%	Subsidiaries acquired from business combinations not under common control

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9 INVESTMENTS IN SUBSIDIARIES (CONTINUED)

Name of subsidiary	Country of incorporation	Type of interest held	Registered capital	Business nature and scope of operations	Percentage of equity interest held		Acquisition method
					Interest	Voting	
Shanxi Xiaoyi Economic Development Zone Huaneng Energy Service Co., Ltd. ("Shanxi Xiaoyi Energy") (xviii)	PRC	Held indirectly	RMB100,000,000	Electricity sales	51%	100%	Subsidiaries acquired from business combinations not under common control
Huaneng Anyang Co-generation Limited Liability Company("Anyang Thermal Power") (xix)	PRC	Held directly	RMB152,232,000	Electricity, heat production, and supply	51%	100%	Subsidiaries acquired from business combinations not under common control
Dalian Ship Haizhuang New Energy Co., Ltd. (i) (xxxii)	PRC	Held indirectly	RMB1,568,402,100	Clean energy power generation	98%	100%	Subsidiaries acquired from asset acquisitions
Huaneng Hualiangting (Suzhou) Clean Energy Co., Ltd. (xxxi)	PRC	Held indirectly	RMB100,000	Clean energy power generation	100%	100%	Subsidiaries acquired through establishment or investment
Huaneng (Yantai) Gas Turbine Power Generation Co., Ltd. (i) (xxxi)	PRC	Held indirectly	RMB200,000,000	Electricity production and supply	60%	75%	Subsidiaries acquired through establishment or investment
Huaneng (Weishan) New Energy Development Co., Ltd. (i) (xxxi)	PRC	Held indirectly	RMB500,000	Clean energy power generation	80%	100%	Subsidiaries acquired through establishment or investment
Huaneng (Linyi) Wisdom Energy Technology Co., Ltd. (i) (xxxi)	PRC	Held indirectly	RMB500,000	Electricity production and supply	72%	90%	Subsidiaries acquired through establishment or investment
Huaneng Lu'an Clean Energy Co., Ltd. (xxxi)	PRC	Held indirectly	RMB1,000,000	Clean energy power generation	100%	100%	Subsidiaries acquired through establishment or investment

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9 INVESTMENTS IN SUBSIDIARIES (CONTINUED)

Name of subsidiary	Country of incorporation	Type of interest held	Registered capital	Business nature and scope of operations	Percentage of equity interest held		Acquisition method
					Interest	Voting	
Huaneng Hefei Cleaning Energy Co., Ltd. (xxxi)	PRC	Held indirectly	RMB1,000,000	Clean energy power generation	100%	100%	Subsidiaries acquired through establishment or investment
Qinyang Huarui Cleaning Energy Co., Ltd. (xxxi)	PRC	Held indirectly	RMB1,000,000	Clean energy power generation	90%	90%	Subsidiaries acquired through establishment or investment
Huaneng (Nanping Yanping) Cleaning Energy Co., Ltd. (xxxi)	PRC	Held indirectly	RMB5,000,000	Clean energy power generation	100%	100%	Subsidiaries acquired through establishment or investment
Huaneng (Fuzhou Cangshan) Cleaning Energy Co., Ltd. (xxxi)	PRC	Held indirectly	RMB5,000,000	Clean energy power generation	100%	100%	Subsidiaries acquired through establishment or investment
Huaneng (Jianou) Clean Energy Co., Ltd. (xxxi)	PRC	Held indirectly	RMB5,000,000	Clean energy power generation	100%	100%	Subsidiaries acquired through establishment or investment
Huaneng (Shaowu) Clean Energy Co., Ltd. (xxxi)	PRC	Held indirectly	RMB5,000,000	Clean energy power generation	100%	100%	Subsidiaries acquired through establishment or investment
Huaneng Zhongxin (Rudong) New Energy Co., Ltd. (xxxi)	PRC	Held indirectly	RMB99,173,100	Clean energy power generation	65%	65%	Subsidiaries acquired through establishment or investment
Huaneng Wanbang (Liyang) Energy Development Co., Ltd. (xxxi)	PRC	Held indirectly	RMB20,000,000	Electricity production and supply	100%	100%	Subsidiaries acquired through establishment or investment
Yancheng Xinbang Energy Technology Co., Ltd. (xxxi)	PRC	Held indirectly	RMB60,000,000	Clean energy power generation	100%	100%	Subsidiaries acquired through establishment or investment

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9 INVESTMENTS IN SUBSIDIARIES (CONTINUED)

Name of subsidiary	Country of incorporation	Type of interest held	Registered capital	Business nature and scope of operations	Percentage of equity interest held		Acquisition method
					Interest	Voting	
Huaneng (Chizhou) Energy Development Co., Ltd. (xxxi)	PRC	Held indirectly	RMB13,000,000	Clean energy power generation	100%	100%	Subsidiaries acquired through establishment or investment
Huasu Energy Development (Danyang) Co., Ltd. (xxxi)	PRC	Held indirectly	RMB20,000,000	Electricity production and supply	100%	100%	Subsidiaries acquired through establishment or investment
Huaneng (Yangjiang) Clean Energy Co., Ltd. (xxxi)	PRC	Held indirectly	RMB2,000,000	Clean energy power generation	100%	100%	Subsidiaries acquired through establishment or investment
Huaneng (Shaoxing) Energy Development Co., Ltd. (xxxi)	PRC	Held indirectly	RMB10,000,000	Clean energy power generation	100%	100%	Subsidiaries acquired through establishment or investment
Huaneng (Wencheng) New Energy Development Co., Ltd. (xxxi)	PRC	Held indirectly	RMB27,000,000	Clean energy power generation	100%	100%	Subsidiaries acquired through establishment or investment
Huaneng East China (Pu'er) Cleaning Energy Co., Ltd. (xxxi)	PRC	Held indirectly	RMB500,000	Clean energy power generation	100%	100%	Subsidiaries acquired through establishment or investment
Nuotan (Wulian) Clean Energy Co., Ltd. (xxxi)	PRC	Held indirectly	RMB500,000	Clean energy power generation	100%	100%	Subsidiaries acquired through establishment or investment
Huaneng (Changshun) New Energy Power Generation Co., Ltd. (xxxi)	PRC	Held indirectly	RMB500,000	Clean energy power generation	100%	100%	Subsidiaries acquired through establishment or investment

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9 INVESTMENTS IN SUBSIDIARIES (CONTINUED)

Name of subsidiary	Country of incorporation	Type of interest held	Registered capital	Business nature and scope of operations	Percentage of equity interest held		Acquisition method
					Interest	Voting	
Huaneng Jinzhong New Energy Co., Ltd. (xxxi)	PRC	Held directly	RMB500,000	Clean energy power generation	100%	100%	Subsidiaries acquired through establishment or investment
Huaneng (Liuyang) New energy Co., Ltd. (xxxi)	PRC	Held directly	RMB100,000	Clean energy power generation	100%	100%	Subsidiaries acquired through establishment or investment
Huaneng (Tianjin) Clean Energy Co., Ltd. (xxxi)	PRC	Held directly	RMB10,000,000	Clean energy power generation	100%	100%	Subsidiaries acquired through establishment or investment
Tianjin Huaneng Jingang Green Energy Co., Ltd. (xxxi)	PRC	Held indirectly	RMB500,000	Clean energy power generation	100%	100%	Subsidiaries acquired through establishment or investment
Huaneng Qidong New Energy Co., Ltd. (xxxi)	PRC	Held directly	RMB100,000	Clean energy power generation	100%	100%	Subsidiaries acquired through establishment or investment
Luannan County Shengshi New Energy Development Co., Ltd. (xxxi)	PRC	Held indirectly	RMB500,000	Clean energy power generation	100%	100%	Subsidiaries acquired through establishment or investment
Huaneng Offshore Wind Power (Yingkou) Co., Ltd. (i) (xxxi)	PRC	Held indirectly	RMB5,481,424,600	Clean energy power generation	78%	100%	Subsidiaries acquired through establishment or investment
Huaneng (Huzhou) New Energy Development Co., Ltd. (xxxi)	PRC	Held indirectly	RMB10,000,000	Clean energy power generation	75%	75%	Subsidiaries acquired through establishment or investment

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9 INVESTMENTS IN SUBSIDIARIES (CONTINUED)

Name of subsidiary	Country of incorporation	Type of interest held	Registered capital	Business nature and scope of operations	Percentage of equity interest held		Acquisition method
					Interest	Voting	
Huaneng Zhongmei(Guigang) New Energy Co., Ltd. ("Zhongmei Guigang") (xx) (xxxi)	PRC	Held indirectly	RMB500,000	Clean energy power generation	64%	100%	Subsidiaries acquired through establishment or investment
Huaneng Zhongmei Leye New Energy Co., Ltd. ("Zhongmei Leye") (xx) (xxxi)	PRC	Held indirectly	RMB500,000	Clean energy power generation	64%	100%	Subsidiaries acquired through establishment or investment
Huaneng (Longlin) New Energy Co., Ltd. (xxxi)	PRC	Held indirectly	RMB500,000	Clean energy power generation	100%	100%	Subsidiaries acquired through establishment or investment
Shanghai Huaqing Nuotan New Energy Development Co., Ltd. (xxxi)	PRC	Held indirectly	RMB500,000	Clean energy power generation	100%	100%	Subsidiaries acquired through establishment or investment
Huaneng (Yueyang) New Energy Co., Ltd. (xxxi)	PRC	Held directly	RMB5,000,000	Clean energy power generation	100%	100%	Subsidiaries acquired through establishment or investment
Huaneng (Youxi) Cleaning Energy Co., Ltd. (xxxi)	PRC	Held indirectly	RMB5,000,000	Clean energy power generation	100%	100%	Subsidiaries acquired through establishment or investment
Huaneng Gongtou (Lianyungang)Energy Development Co., Ltd. ("Gongtou Lianyungang") (xxi) (xxxi)	PRC	Held indirectly	RMB400,000,000	Electricity, heat, gas, and water production and supply industry	51%	68.86%	Subsidiaries acquired through establishment or investment
Huaneng Taihang Energy (Henan) Co., Ltd. ("Taihang Energy (Henan)") (xxxi)	PRC	Held directly	RMB10,000,000	Electricity, heat production, and supply	100%	100%	Subsidiaries acquired through establishment or investment

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9 INVESTMENTS IN SUBSIDIARIES (CONTINUED)

Name of subsidiary	Country of incorporation	Type of interest held	Registered capital	Business nature and scope of operations	Percentage of equity interest held		Acquisition method
					Interest	Voting	
Huaneng (Xiushan) Wind Power Co., Ltd. (xxxi)	PRC	Held directly	RMB10,000,000	Electricity, heat production, and supply	100%	100%	Subsidiaries acquired through establishment or investment
Huaneng Taiqian Wind Power Co., Ltd. (xxxi)	PRC	Held directly	RMB24,036,800	Electricity, heat production, and supply	100%	100%	Subsidiaries acquired through establishment or investment
Tai'an Daiyue District Fengyang New Energy Co., Ltd. (i) (xxxi)	PRC	Held indirectly	RMB1,000,000	Science and technology promotion and application services industry	90%	100%	Subsidiaries acquired through establishment or investment
Huaneng Baoding Energy Storage Technology Co., Ltd. (xxxi)	PRC	Held indirectly	RMB500,000	Science and technology promotion and application services industry	100%	100%	Subsidiaries acquired through establishment or investment
Huaneng Chengde County Clean Energy Co., Ltd. (xxxi)	PRC	Held indirectly	RMB500,000	Electricity, heat production, and supply	100%	100%	Subsidiaries acquired through establishment or investment
Huaneng Wanjiang Henan Geothermal Energy Development Co., Ltd. (xxxi)	PRC	Held indirectly	RMB10,000,000	Electricity, heat production, and supply	65%	65%	Subsidiaries acquired through establishment or investment
Huaneng Huan'an (Anyang) Clean Energy Co., Ltd. (xxxi)	PRC	Held indirectly	RMB10,000,000	Electricity, heat production, and supply	100%	100%	Subsidiaries acquired through establishment or investment
Huaneng Qinghua (Bo'ai County) New Energy Co., Ltd. ("Qinghua (Bo'ai County)") (i) (xxii) (xxxi)	PRC	Held indirectly	RMB10,000,000	Electricity, heat production, and supply	90%	100%	Subsidiaries acquired through establishment or investment

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9 INVESTMENTS IN SUBSIDIARIES (CONTINUED)

Name of subsidiary	Country of incorporation	Type of interest held	Registered capital	Business nature and scope of operations	Percentage of equity interest held		Acquisition method
					Interest	Voting	
Huaneng Fuyu County Cleaning Energy Co., Ltd. (xxxi)	PRC	Held indirectly	RMB370,000,000	Electricity, heat production, and supply	100%	100%	Subsidiaries acquired through establishment or investment
Huaneng Gannan County Clean Energy Co., Ltd. (xxxi)	PRC	Held indirectly	RMB144,000,000	Electricity, heat production, and supply	100%	100%	Subsidiaries acquired through establishment or investment
Huaneng (Taojiang) New Energy Co., Ltd. (xxxi)	PRC	Held indirectly	RMB5,000,000	Electricity, heat production, and supply	100%	100%	Subsidiaries acquired through establishment or investment
Huaneng Jilin Cleaning Energy Power Generation Co., Ltd. (xxxi)	PRC	Held indirectly	RMB100,000,000	Electrical machinery and equipment manufacturing industry	100%	100%	Subsidiaries acquired through establishment or investment
Tianjin Jitong Electric Power Technology Partnership Enterprise (Limited Partnership) ("Tianjin Jitong Power") (xxiii) (xxxi)	PRC	Held indirectly	RMB6,010,000,000	Electricity, heat production, and supply	20.12%	66.67%	Subsidiaries acquired through establishment or investment
Nanjing Rufeng Electric Power Development Partnership Enterprise (Limited Partnership) ("Nanjing Rufeng Power") (xxiii) (xxxi)	PRC	Held indirectly	RMB9,767,000,000	Electricity, heat production, and supply	20%	66.67%	Subsidiaries acquired through establishment or investment
Yantai Huarui Electric Power Technology Partnership Enterprise (Limited Partnership) ("Yantai Huarui Power") (xxiii) (xxxi)	PRC	Held indirectly	RMB4,745,000,000	Electricity, heat production, and supply	16%	66.67%	Subsidiaries acquired through establishment or investment

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9 INVESTMENTS IN SUBSIDIARIES (CONTINUED)

Name of subsidiary	Country of incorporation	Type of interest held	Registered capital	Business nature and scope of operations	Percentage of equity interest held		Acquisition method
					Interest	Voting	
Tianjin Yingchu Electric Power Technology Partnership (Limited Partnership) ("Tianjin Yingchu Power") (xxiii) (xxxi)	PRC	Held directly	RMB2,249,820,000	Electricity, heat production, and supply	25.02%	66.67%	Subsidiaries acquired through establishment or investment
Shantou Lemen Electric Power Technology Partnership Enterprise (Limited Partnership) ("Shantou Lemen Power") (xxiii) (xxxi)	PRC	Held indirectly	RMB6,192,000,000	Electricity, heat production, and supply	20.01%	66.67%	Subsidiaries acquired through establishment or investment
Huaneng Songyuan Thermal Power Co., Ltd. (xxxi)	PRC	Held indirectly	RMB380,000,000	Electricity, heat production, and supply	100%	100%	Subsidiaries acquired through establishment or investment
Huaneng (Tian Deng) New Energy Co., Ltd. (xxxi)	PRC	Held indirectly	RMB500,000	Electricity, heat production, and supply	100%	100%	Subsidiaries acquired through establishment or investment
Huaneng (Nanning Jiangnan District) New Energy Development Co., Ltd. (xxxi)	PRC	Held indirectly	RMB500,000	Science and technology promotion and application services industry	100%	100%	Subsidiaries acquired through establishment or investment
Huaneng (Anshan) Energy Development Co., Ltd. (xxxi)	PRC	Held indirectly	RMB500,000	Science and technology promotion and application services industry	100%	100%	Subsidiaries acquired through establishment or investment
Huaneng (Fengcheng) Green Energy Co., Ltd. (xxxi)	PRC	Held indirectly	RMB500,000	Science and technology promotion and application services industry	100%	100%	Subsidiaries acquired through establishment or investment
Huaneng (Zhenfeng) New Energy Power Generation Co., Ltd. (xxxi)	PRC	Held indirectly	RMB500,000	Electricity, heat production, and supply	100%	100%	Subsidiaries acquired through establishment or investment

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9 INVESTMENTS IN SUBSIDIARIES (CONTINUED)

Name of subsidiary	Country of incorporation	Type of interest held	Registered capital	Business nature and scope of operations	Percentage of equity interest held		Acquisition method
					Interest	Voting	
Huaneng (Qingzhen) New Energy Power Generation Co., Ltd. (xxxi)	PRC	Held indirectly	RMB500,000	Electricity, heat production, and supply	100%	100%	Subsidiaries acquired through establishment or investment
Huaneng (Zhuji) New Energy Co., Ltd. (xxxi)	PRC	Held indirectly	RMB10,000,000	Science and technology promotion and application services industry	100%	100%	Subsidiaries acquired through establishment or investment
Shanghai Haotian Huaying Comprehensive Energy Service Co., Ltd. (xxxi)	PRC	Held indirectly	RMB500,000	Electricity, heat production, and supply	100%	100%	Subsidiaries acquired through establishment or investment
Changshan Nuoqing New Energy Co., Ltd. (xxxi)	PRC	Held indirectly	RMB500,000	Electricity, heat production, and supply	100%	100%	Subsidiaries acquired through establishment or investment
Lanxi Nuoqing New Energy Co., Ltd. (xxxi)	PRC	Held indirectly	RMB500,000	Electricity, heat production, and supply	100%	100%	Subsidiaries acquired through establishment or investment
Nuotan (Suzhou) Clean Energy Co., Ltd. (xxxi)	PRC	Held indirectly	RMB500,000	Science and technology promotion and application services industry	100%	100%	Subsidiaries acquired through establishment or investment
Suzhou Nuotan Fenhu Cleaning Energy Co., Ltd. (xxxi)	PRC	Held indirectly	RMB500,000	Electricity, heat production, and supply	100%	100%	Subsidiaries acquired through establishment or investment
Suzhou Nuotan Wuyue Cleaning Energy Co., Ltd. (xxxi)	PRC	Held indirectly	RMB500,000	Electricity, heat production, and supply	100%	100%	Subsidiaries acquired through establishment or investment

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9 INVESTMENTS IN SUBSIDIARIES (CONTINUED)

Name of subsidiary	Country of incorporation	Type of interest held	Registered capital	Business nature and scope of operations	Percentage of equity interest held		Acquisition method
					Interest	Voting	
Dongping Fengyang New Energy Co., Ltd. (i) (xxxi)	PRC	Held indirectly	RMB1,000,000	Electrical machinery and equipment manufacturing industry	90%	100%	Subsidiaries acquired through establishment or investment
Huaneng Jingsheng Hong'an County New Energy Co., Ltd. (i) (xxxi)	PRC	Held indirectly	RMB1,000,000	Electricity, heat production, and supply	98%	100%	Subsidiaries acquired through establishment or investment
Huaneng (Dezhou) Power Generation Co., Ltd. ("Dezhou Power") (xxiv) (xxxi)	PRC	Held indirectly	RMB1,200,000,000	Electricity, heat production, and supply	61%	76%	Subsidiaries acquired through establishment or investment
Huaneng (Dongping) New Energy Co., Ltd. ("Dongping New Energy") (xxiv) (xxxi)	PRC	Held indirectly	RMB5,000,000	Science and technology promotion and application services industry	56%	70%	Subsidiaries acquired through establishment or investment
Huaneng (Rushan) New Energy Co., Ltd. (i) (xxxi)	PRC	Held indirectly	RMB95,686,596	Electricity, heat production, and supply	80%	100%	Subsidiaries acquired through establishment or investment
Huaneng (Mouping District, Yantai) New Energy Technology Development Co., Ltd. ("Yantai Mouping New Energy") (xxiv) (xxxi)	PRC	Held indirectly	RMB1,154,200,000	Electricity, heat production, and supply	41%	51%	Subsidiaries acquired through establishment or investment
Huaneng (Haicheng) Energy Development Co., Ltd. (i) (xxxi)	PRC	Held indirectly	RMB500,000	Electricity, heat production, and supply	78%	100%	Subsidiaries acquired through establishment or investment
Huaneng (Zhangpu) Photovoltaic Power Generation Co., Ltd. (xxxi)	PRC	Held indirectly	RMB170,000,000	Electricity, heat production, and supply	80%	80%	Subsidiaries acquired through establishment or investment

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9 INVESTMENTS IN SUBSIDIARIES (CONTINUED)

Name of subsidiary	Country of incorporation	Type of interest held	Registered capital	Business nature and scope of operations	Percentage of equity interest held Interest	Voting	Acquisition method
Huaneng (Guiping) Photovoltaic Power Generation Co., Ltd. (xxxi)	PRC	Held indirectly	RMB5,000,000	Electricity, heat production, and supply	100%	100%	Subsidiaries acquired through establishment or investment
Tangshan Shenjian New Energy Co., Ltd. (xxxi)	PRC	Held indirectly	RMB500,000	Science and technology promotion and application services industry	100%	100%	Subsidiaries acquired through establishment or investment
Huaneng (Bazhou) Energy Co., Ltd. (xxxi)	PRC	Held indirectly	RMB500,000	Electricity, heat production, and supply	100%	100%	Subsidiaries acquired through establishment or investment
Huaneng (Feicheng) Power Generation Co., Ltd. (xxxi)	PRC	Held indirectly	RMB500,000	Electricity, heat production, and supply	100%	100%	Subsidiaries acquired through establishment or investment
Huaneng Tianbang New Energy (Juancheng) Co., Ltd. (xxxi)	PRC	Held indirectly	RMB20,109,300	Electricity, heat production, and supply	100%	100%	Subsidiaries acquired through establishment or investment
Huaneng (Huaiyin District, Jinan) New Energy Power Generation Co., Ltd. (xxxi)	PRC	Held indirectly	RMB500,000	Electricity, heat production, and supply	100%	100%	Subsidiaries acquired through establishment or investment
Huaneng Zhongyan (Changzhou) Energy Storage Co., Ltd. (xxxi)	PRC	Held indirectly	RMB791,000,000	Electricity, heat production, and supply	51%	51%	Subsidiaries acquired through establishment or investment
Huaneng Jiangbei (Nanjing) Green Energy Development Co., Ltd. (xxxi)	PRC	Held indirectly	RMB200,000,000	Science and technology promotion and application services industry	100%	100%	Subsidiaries acquired through establishment or investment

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9 INVESTMENTS IN SUBSIDIARIES (CONTINUED)

Name of subsidiary	Country of incorporation	Type of interest held	Registered capital	Business nature and scope of operations	Percentage of equity interest held Interest	Voting	Acquisition method
Huaneng (Yongzhou) New Energy Co., Ltd. (xxxi)	PRC	Held directly	RMB1,000,000	Electricity, heat production, and supply	100%	100%	Subsidiaries acquired through establishment or investment
Huaneng (Mouping District, Yantai) New Energy Power Generation Co., Ltd. (i) (xxxi)	PRC	Held indirectly	RMB500,000	Electricity, heat production, and supply	72%	90%	Subsidiaries acquired through establishment or investment
Huaneng (Suqian) New Energy Development Co., Ltd. (xxxi)	PRC	Held indirectly	RMB2,000,000	Science and technology promotion and application services industry	100%	100%	Subsidiaries acquired through establishment or investment
Huaneng (Chun'an) Power Generation Co., Ltd. (xxxi)	PRC	Held indirectly	RMB10,000,000	Electricity, heat production, and supply	75%	75%	Subsidiaries acquired through establishment or investment
Huaneng Lingang (Taicang) Energy Development Co., Ltd. ("Lingang Taicang") (xxv) (xxxi)	PRC	Held indirectly	RMB30,000,000	Electricity, heat production, and supply	51%	51%	Subsidiaries acquired through establishment or investment
Shijiazhuang Nengte Cleaning Energy Co., Ltd. (xxxii)	PRC	Held indirectly	RMB500,000	Electricity, heat production, and supply	100%	100%	Subsidiaries acquired from asset acquisitions
Pingshan Nengte Cleaning Energy Co., Ltd. (xxxii)	PRC	Held indirectly	RMB500,000	Electricity, heat production, and supply	100%	100%	Subsidiaries acquired from asset acquisitions
Weichang Manchu and Mongol Autonomous County Fengyun Wind Power Generation Co., Ltd. ("Weichang Manchu Fengyun") (xxvi) (xxxii)	PRC	Held indirectly	RMB500,000	Electricity, heat production, and supply	49%	100%	Subsidiaries acquired from asset acquisitions

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9 INVESTMENTS IN SUBSIDIARIES (CONTINUED)

Name of subsidiary	Country of incorporation	Type of interest held	Registered capital	Business nature and scope of operations	Percentage of equity interest held		Acquisition method
					Interest	Voting	
Weichang Manchu and Mongol Autonomous County Huoyun Photovoltaic Power Generation Co. Ltd. ("Weichang Manchu Huoyun") (xxvii) (xxxii)	PRC	Held indirectly	RMB500,000	Electricity, heat production, and supply	49%	100%	Subsidiaries acquired from asset acquisitions
Weichang Manchu and Mongol Autonomous County Shangyuan Wind Power Generation Co., Ltd. ("Weichang Manchu Shangyuan") (xxvi) (xxxii)	PRC	Held indirectly	RMB406,394,000	Electricity, heat production, and supply	49%	100%	Subsidiaries acquired from asset acquisitions
Weichang Manchu and Mongol Autonomous County Saiyun Photovoltaic Power Generation Co., Ltd. ("Weichang Manchu Saiyun") (xxvii) (xxxii)	PRC	Held indirectly	RMB631,200,000	Electricity, heat production, and supply	49%	100%	Subsidiaries acquired from asset acquisitions
Shijiazhuang Rongqingtou Clean Energy Co., Ltd. ("Shijiazhuang Rongqingtou") (xxviii)	PRC	Held indirectly	RMB500,000	Electricity, heat production, and supply	49%	100%	Subsidiaries acquired from business combinations under common control
Weichang Man And Menggu Autonomous County Yangjie Photovoltaic Power Generation Co., Ltd. ("Weichang Man And Menggu Yangjie") (xxviii)	PRC	Held indirectly	RMB406,509,000	Electricity, heat production, and supply	49%	100%	Subsidiaries acquired from business combinations under common control

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9 INVESTMENTS IN SUBSIDIARIES (CONTINUED)

Name of subsidiary	Country of incorporation	Type of interest held	Registered capital	Business nature and scope of operations	Percentage of equity interest held		Acquisition method
					Interest	Voting	
Jinzhou Changyang New Energy Technology Co., Ltd. ("Jinzhou Changyang New Energy") (xxviii)	PRC	Held indirectly	RMB100,000	Electricity, heat production, and supply	49%	100%	Subsidiaries acquired from business combinations under common control
Guangzong County Cheng feng New Energy Technology Co., Ltd. ("Guangzong County Cheng feng New Energy") (xxviii)	PRC	Held indirectly	RMB500,000	Science and technology promotion and application services industry	49%	100%	Subsidiaries acquired from business combinations under common control
Quzhou County Fengchuang New Energy Technology Co., Ltd. ("Fengchuang New Energy") (xxviii)	PRC	Held indirectly	RMB500,000	Science and technology promotion and application services industry	49%	100%	Subsidiaries acquired from business combinations under common control
Jinan Dongtai Thermal Co., Ltd. ("Jinan Dongtai Power") (xxiv) (xxxiv)	PRC	Held indirectly	RMB25,000,000	Electricity, heat production, and supply	48%	60%	Subsidiaries acquired from business combinations not under common control
Zilai Renewable Resources Technology (Nanjing) Co., Ltd. ("Zilai Renewable Resources") (xxix)	PRC	Held indirectly	RMB30,000,000	Wholesale industry	51%	100%	Subsidiaries acquired from business combinations not under common control
Huaneng Production Investment (Fuzhou) Thermal Power Co., Ltd. ("Chantou Fuzhou Thermal Power") (xxx)	PRC	Held indirectly	RMB100,000,000	Electricity, heat production, and supply	51%	90%	Subsidiaries acquired from business combinations not under common control

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9 INVESTMENTS IN SUBSIDIARIES (CONTINUED)

Name of subsidiary	Country of incorporation	Type of interest held	Registered capital	Business nature and scope of operations	Percentage of equity interest held		Acquisition method
					Interest	Voting	
Chengde Rongjian (xxxiii)	PRC	Held indirectly	RMB500,000	Electricity, heat production, and supply	100%	100%	Subsidiaries acquired from business combinations not under common control
Chengde County Xinyi Photovoltaic Power Generation Co., Ltd. ("Chengde Xinyi") (xxxiii)	PRC	Held indirectly	RMB303,770,000	Electricity, heat production, and supply	100%	100%	Subsidiaries acquired from business combinations not under common control
Shandong Huangtai Heat Supply Co., Ltd. ("Shandong Huangtai Power") (i) (xxiv) (xxxiv)	PRC	Held indirectly	RMB23,759,000	Electricity, heat production, and supply	80%	100%	Subsidiaries acquired from business combinations not under common control

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9 INVESTMENTS IN SUBSIDIARIES (CONTINUED)

Notes:

(i) Indirectly held subsidiaries are companies controlled by the Group through its subsidiaries. The shareholding ratio of the Group is determined by the shareholding ratio of the Group to its directly controlling parent company and the shareholding ratio of its directly controlling parent company. The proportion of voting rights of the Group is the proportion of voting rights of its directly controlling parent company.

(ii) According to its articles of association, the other shareholder who holds the remaining equity interests of Shidongkou Power entrusts the Group to exercise all its voting rights in relation to the operation and financial policies of Shidongkou Power. Accordingly, the Group has control over Shidongkou Power.

(iii) According to the voting in concert agreement entered into between the Group and another shareholder with 27.38% equity interests in Nanjing Combined Cycle Co-generation, the shareholder agreed to vote the same in respect of significant financial and operating decisions made by the Group. Accordingly, the Group has control over Nanjing Combined Cycle Co-generation.

(iv) According to the voting in concert agreement entered into between the Group and another shareholder with 49% equity interests in Jiyuan Energy Sales, the shareholder agreed to vote the same in respect of significant financial and operating decisions made by the Group. Accordingly, the Group has control over Jiyuan Energy Sales.

(v) Zhenlai Photovoltaic Power is a subsidiary of the Company's subsidiary, Jilin Power. According to the investment cooperation agreement and articles of association signed by Jilin Power and the other shareholder of Zhenlai Photovoltaic Power, the other shareholder is entitled to fixed operating income and releases all shareholders' equity at the expiration. Therefore, the Group has control over Zhenlai Photovoltaic Power.

(vi) According to the voting in concert agreement entered into between the Group and the other shareholder with 35% equity interests in Daishan Wind Power, the other shareholder agreed to vote the same in respect of significant financial and operating decisions made by the Group. Accordingly, the Group has control over Daishan Wind Power.

(vii) According to the investment cooperation agreement entered into between the Group and another shareholder with 40% equity interests in Tongyu Yufeng New Energy, the shareholder agreed to vote the same in respect of significant financial and operating decisions made by the Group. Accordingly, the Group has control over Tongyu Yufeng New Energy.

(viii) According to the voting in concert agreement entered into between the Group and another shareholder with 2% equity interests in Zhuanghe Clean Energy, the shareholder agreed to vote the same in respect of significant financial and operating decisions made by the Group. Accordingly, the Group has control over Zhuanghe Clean Energy.

(ix) According to the voting in concert agreement entered into between the Group and another shareholder with 10% equity interests in Xiaochang Energy Development, the shareholder agreed to vote the same in respect of significant financial and operating decisions made by the Group. Accordingly, the Group has control over Xiaochang Energy Development.

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9 INVESTMENTS IN SUBSIDIARIES (CONTINUED)

Notes: (Continued)

(x) In 2023, in order to issue the Infrastructure Investment Directed Asset Backed Notes and Infrastructure Investment Asset Backed Special Plans, the Group incorporated five partnership enterprises, namely Huamin Tianjin, Tianjin Jingchu Power, Longxing Power, Qingdao Huaying and Huagan Tianjin. According to the partnership agreement, the Group holds 66.67% (two-thirds) voting rights in these partnership enterprises, thus the Group has control over aforementioned enterprises.

- Fujian Energy Development, a wholly owned subsidiary of the Company, holds 2% equity interests in Huamin Tianjin. And Fujian Energy Sales, a wholly owned subsidiary of the Company, holds 18% equity interests in Huamin Tianjin. As a result, the Company indirectly holds 20% interests in Huamin Tianjin.

- The Company holds 14.95% equity interests in Tianjin Jingchu Power, and Huaneng Hubei Energy Sales Ltd. ("Hubei Energy Sales"), a wholly owned subsidiary of the Company, holds 15% equity interests in Tianjin Jingchu Power. As a result, the Company directly holds 29.95% interests in Tianjin Jingchu Power.

- Heilongjiang Power Generation, a wholly owned subsidiary of the Company, holds 5% equity interests in Longxing Power. Huaneng Heilongjiang Energy Sales Ltd., a wholly owned subsidiary of the Company, holds 15% equity interests in Longxing Power. As a result, the Company indirectly holds 20% equity interests in Longxing Power.

- Shandong Power, an 80% owned subsidiary of the Company, holds 4% equity interests in Qingdao Huaying. And Shandong Silk Road, an 80% owned subsidiary of the Company, hold 16.01% equity interests in Qingdao Huaying. As a result, the Company indirectly holds 16.01% equity interests in Qingdao Huaying.

- The Company holds 2% equity interests in Huagan Tianjin and Jiangxi Energy Sales, a wholly owned subsidiary of the Company, holds 18% equity interests in Huagan Tianjin. As a result, the Company directly holds 20% equity interests in Huagan Tianjin.

9 INVESTMENTS IN SUBSIDIARIES (CONTINUED)

Notes: (Continued)

(xi) Indirectly held subsidiaries are project companies in which the Group issue the Infrastructure Investment Directed Asset Backed Notes and Infrastructure Investment Asset Backed Special Plans. According to the articles of association, these project companies are controlled by partnership enterprises established for the issuance of Infrastructure Investment Directed Asset Backed Notes and Infrastructure Investment Asset Backed Special Plans, and the Group has control over the aforementioned partnership enterprises as stated in Note (x) and Note (xxiii). Therefore, the Group has control over these project companies.

- Tianjin Jitong Power, a subsidiary in which the Company indirectly holds a 20.12% equity interest, owns 88% of Tongyu Power. Meanwhile, Jilin Power, a wholly-owned subsidiary of the Company, holds a 12% equity interest in Tongyu Power. As a result, the Company's total equity interest in Tongyu Power is 29.71%.

- Yantai Huarui Power, a subsidiary in which the Company holds a 16% equity interest, owns 99.99% of Yantai Bajiao. Meanwhile, Shandong Power, a subsidiary in which the Company holds an 80% equity interest, owns 0.01% of Yantai Bajiao. As a result, the Company's total equity interest in Yantai Bajiao is 16.01%.

- Fujian Energy Development, a wholly-owned subsidiary of the Company, holds 0.01% of Luoyuan Power. Meanwhile, Huamin Tianjin, a subsidiary in which the Company holds a 20% equity interest, holds 99.99% of Luoyuan Power. As a result, the Company's total equity interest in Luoyuan Power is 20.01%.

- Nanjing Rufeng Power, a subsidiary in which the Company indirectly holds a 20% equity interest, holds 99.99% equity in Rudong Baxianjiao. Meanwhile, Jiangsu Energy Development, a wholly-owned subsidiary of the Company, holds 0.01% equity in Rudong Baxianjiao. As a result, the Company's total equity interest in Rudong Baxianjiao is 20.01%.

- Rudong Baxianjiao, a subsidiary in which the Company holds a 20.01% equity interest, holds 100% of Yancheng Dafeng. Therefore, the Company's total equity interest in Yancheng Dafeng is 20.01%.

- Shantou Lemen Power, a subsidiary in which the Company holds a 20.01% equity interest, holds 99.99% of Shantou Wind Power. Meanwhile, Guangdong Energy Development, a wholly-owned subsidiary of the Company, holds 0.01% of Shantou Wind Power. As a result, the Company's total equity interest in Shantou Wind Power is 20.02%.

- Qingdao Huaying, a subsidiary in which the Company holds a 16.01% equity interest, holds 92.9% of Laiwu Power. As a result, the Company's total equity interest in Laiwu Power is 14.87%.

- Longxing Power, a subsidiary in which the Company holds a 20% equity interest, holds 99.99% of the equity in Daqing Co-generation. Meanwhile, Heilongjiang Power Generation, a wholly-owned subsidiary of the Company, holds 0.01% of the equity in Daqing Co-generation. As a result, the Company's total equity interest in Daqing Co-generation is 20.01%.

- Huagan Tianjin, a subsidiary in which the Company holds a 20% equity interest, holds 99.99% equity in Anyuan Power. Meanwhile, the Company directly holds 0.01% equity in Anyuan Power. As a result, the Company's total equity interest in Anyuan Power is 20.01%.

- Tianjin Yingchu Power, a subsidiary in which the Company holds a 25.02% equity interest, holds 99.99% of the equity in Yingcheng Thermal Power. Meanwhile, the Company directly holds 0.01% equity in Yingcheng Thermal Power. As a result, the Company's total equity interest in Yingcheng Thermal Power is 25.03%.

- Tianjin Jingchu Power, a subsidiary in which the Company holds a 29.95% equity interest, holds 99.99% of Jingmen Thermal Power. Meanwhile, the Company directly holds 0.01% equity in Jingmen Thermal Power. As a result, the Company's total equity interest in Jingmen Thermal Power is 29.96%.

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9 INVESTMENTS IN SUBSIDIARIES (CONTINUED)

Notes: (Continued)

(xii) According to the voting in concert agreement entered into between the Company and another shareholder of Beijing Co-generation, the Company is entrusted to vote the 25% voting rights held by the other shareholder as long as the Group remains as the largest shareholder of Beijing Co-generation. Thus, the Group has majority voting rights required by the articles of association to control the operating and financial policies of Beijing Co-generation. Accordingly, the Group has control over Beijing Co-generation.

(xiii) According to the voting in concert agreement entered into between the Group and another shareholder with 10% equity interests in Chaohu Power Generation, the shareholder agreed to vote the same in respect of significant financial and operating decisions made by the Group during the period when the Group is the largest shareholder of Chaohu Power Generation. Accordingly, the Group has control over Chaohu Power Generation.

(xiv) According to the voting in concert agreement entered into between the Group and the other two shareholders of Suzhou Thermal Power, the shareholders agreed to vote the same in respect of significant financial and operating decisions made by the Group during the period when the Group is the largest shareholder of Suzhou Thermal Power. As a result, the Group has control over Suzhou Thermal Power.

(xv) According to the voting in concert agreement entered into between the Group and another shareholder of Ruijin Power Generation, the shareholder agreed to vote the same in respect of significant financial and operating decisions made by the Group. Accordingly, the Group has control over Ruijin Power Generation.

(xvi) According to the voting in concert agreement entered into between Shandong Power and another shareholder of Ruyi Coal and Power, the shareholder agreed to vote the same in respect of significant financial and operating decisions made by the Group. Accordingly, the Group has control over Ruyi Coal and Power.

(xvii) According to the voting in concert agreement entered into between Shandong Power and another shareholder, the shareholder agreed to vote the same in respect of significant financial and operating decisions made by the Group. Accordingly, the Group has control over Hong Kong Energy and its subsidiary Ruyi Pakistan Energy.

(xviii) According to the voting in concert agreement entered into between Huaneng Shanxi Energy Sales Co., Ltd. and another shareholder, the shareholder agreed to vote the same in respect of significant financial and operating decisions made by the Group. Accordingly, the Group has control over Shanxi Xiaoyi Energy.

(xix) According to the voting in concert agreement entered into between the Group and another shareholder holding a 49% equity interest in Anyang Thermal Power, the shareholder agreed to vote the same in respect of significant financial and operating decisions made by the Group. Accordingly, the Group has control over Anyang Thermal Power.

(xx) According to the voting in concert agreement entered into between Huaneng Guangxi Cleaning Energy Co., Ltd. and another shareholder holding a 36% equity interest in Zhongmei Guigang and Zhongmei Leye, a wholly owned subsidiary of the Company, the shareholder agreed to vote the same in respect of significant financial and operating decisions made by the Group. Accordingly, the Group has control over Zhongmei Guigang and Zhongmei Leye.

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9 INVESTMENTS IN SUBSIDIARIES (CONTINUED)

Notes: (Continued)

(xxi) Gongtou Lianyungang is a 51% subsidiary of Jiangsu Energy Development, a wholly-owned subsidiary of the Group. According to the articles of association, Jiangsu Energy Development exercises its voting rights in accordance with the proportion of paid-in capital contribution. As of December 2024, Jiangsu Energy Development has 68.86% of the paid-in capital contribution to Gongtou Lianyungang, so the voting rights held by the Group in Gongtou Lianyungang are 68.86%.

(xxii) Qinghua (Bo'ai County) is a subsidiary of Taihang Energy (Henan), a wholly-owned subsidiary of the Company, holding 90% of the equity interests. According to the articles of association, Taihang Energy (Henan) exercises voting rights in accordance with the proportion of paid-in capital contribution. As of 31 December 2024, Taihang Energy (Henan) has 100% of the paid-in capital contribution to Qinghua (Bo'ai County), so the voting rights held by the Company in Qinghua (Bo'ai County) are 100%.

(xxiii) In 2024, in order to issue the Infrastructure Investment Directed Asset Backed Notes and Infrastructure Investment Asset Backed Special Plans, the Group incorporated five partnership enterprises, namely Tianjin Jitong Power, Nanjing Rufeng Power, Yantai Huarui Power, Tianjin Yingchu Power, and Shantou Lemen Power. According to the partnership agreement, the Group holds 66.67% (two-thirds) of voting rights in these partnership enterprises, thus the Group has control over the aforementioned enterprises.

- Jilin Power, a wholly owned subsidiary of the Company, holds 5.12% equity interests in Tianjin Jitong Power. And Jilin Energy Sales, a wholly owned subsidiary of Jilin Power, holds 15% equity interests in Tianjin Jitong Power. As a result, the Company totally holds 20.12% interests in Tianjin Jitong Power. In 2024, net capital injection from non-controlling interests of Tianjin Jitong Power was RMB4,801 million.

- Jiangsu Energy Development, a wholly owned subsidiary of the Company, holds 5% equity interests in Nanjing Rufeng Power, and Nanjing Luhe Wind Power, a wholly owned subsidiary of Jiangsu Enengy Development, holds 15% equity interests in Nanjing Rufeng Power. As a result, the Company totally holds 20% interests in Nanjing Rufeng Power. In 2024, net capital injection from non-controlling interests of Nanjing Rufeng Power was RMB7,814 million.

- Shandong Power, an 80% owned subsidiary of the Company, holds 4% equity interests in Yantai Huarui Power. And Shandong Silk Road International, a wholly owned subsidiary of Shandong Power, holds 16% equity interests in Yantai Huarui Power. As a result, the Company totally holds 16% equity interests in Yantai Huarui Power. In 2024, net capital injection from non-controlling interests of Yantai Huarui Power was RMB3,796 million.

- The Company holds 1% equity interests in Tianjin Yingchu Power and Hubei Energy Sales, a wholly owned subsidiary of the Company, holds 24.02% equity interests in Tianjin Yingchu Power. As a result, the Company totally holds 25.02% equity interests in Tianjin Yingchu Power. In 2024, net capital injection from non-controlling interests of Tianjin Yingchu Power was RMB1,687 million.

- Guangdong Energy Development, a wholly owned subsidiary of the Company, holds 4.02% equity interests in Shantou Lemen Power, and Guangdong Energy Sales, a wholly owned subsidiary of Guangdong Enengy Development, holds 15.99% equity interests in Shantou Lemen Power. As a result, the Company totally holds 20.01% equity interests in Shantou Lemen Power. In 2024, net capital injection from non-controlling interests of Shantou Lemen Power was RMB4,953 million.

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9 INVESTMENTS IN SUBSIDIARIES (CONTINUED)

Notes: (Continued)

(xxiv) These companies are subsidiaries of Shandong Power. The Company holds 80% interests in Shandong Power. Thus, the Group indirectly holds interests in these companies through their parent company.

Shandong Power holds 76% of Dezhou Power's equity interests, 70% of Dongping New Energy's equity interests and 51% of Yantai Mouping New Energy's equity interests, giving the Company the corresponding voting rights ratios of 76% in Dezhou Power, 70% in Dongping New Energy and 51% in Yantai Mouping New Energy. Since the Company holds more than half of the voting rights, and can control the operation and financial policies of Yantai Mouping New Energy according to its articles of association, the Group believes that it has control over Yantai Mouping New Energy. Jinan Dongtai Power is a subsidiary in which Shandong Huangtai Power, a wholly-owned subsidiary of Shandong Power, holds 60% equity interests. Therefore, the Company's voting right ratio in Jinan Dongtai Power is 60%.

(xxv) Lingang Taicang is a 51% subsidiary of Jiangsu Energy Development. According to the articles of association, Jiangsu Energy Development exercises voting rights in accordance with the proportion of paid-in capital contribution. As of 31 December 2024, Jiangsu Energy Development has 51% paid-in capital contribution to Lingang Taicang, so the voting rights of the Group in Lingang Taicang are 51%. Since the Group has more than half of the voting rights, according to its articles of association, the Group can control the operating and financial policies of Lingang Taicang, so the Group believes that it has control over Lingang Taicang.

(xxvi) According to the voting in concert agreement entered into between the Group and another shareholder of Weichang Manchu Fengyun, the shareholder agreed to vote the same in respect of significant financial and operating decisions made by the Group. Accordingly, the Group holds 100% of the voting rights and exercises control over Weichang Manchu Fengyun. Weichang Manchu Shangyuan is a wholly owned subsidiary of Weichang Manchu Fengyun. Consequently, the Company holds 100% of the voting rights and exercises control over Weichang Manchu Shangyuan.

(xxvii) According to the voting in concert agreement entered into between the Group and another shareholder of Weichang Manchu Huoyun, the shareholder agreed to vote the same in respect of significant financial and operating decisions made by the Group. Accordingly, the Group holds 100% of the voting rights and exercises control over Weichang Manchu Huoyun. Weichang Manchu Saiyun is a wholly-owned subsidiary of Weichang Manchu Huoyun, so the Company holds 100% of the voting rights and exercises control over Weichang Manchu Saiyun.

(xxviii) According to the voting in concert agreement entered into between the Group and another shareholder of Shijiazhuang Rongqingtou, the shareholder agreed to vote the same in respect of significant financial and operating decisions made by the Group. Accordingly, the Group holds 100% of the voting rights and exercises control over Shijiazhuang Rongqingtou. Weichang Man And Menggu Yangjie, Jinzhou Changyang New Energy, Guangzong County Chengfeng New Energy and Fengchuang New Energy are wholly-owned subsidiaries of Shijiazhuang Rongqingtou, so the Group holds 100% of the voting rights and exercises control over Weichang Man And Menggu Yangjie, Jinzhou Changyang New Energy, Guangzong County Chengfeng New Energy and Fengchuang New Energy.

(xxix) According to the voting in concert agreement entered into between Jiangsu Energy Development and another shareholder holding equity in Zilai Renewable Resources, the shareholder agreed to vote the same in respect of significant financial and operating decisions made by the Group. Accordingly, the Group has control over Zilai Renewable Resources. The fair value of the identifiable net assets of Zilai Renewable Resources as at the date of acquisition was RMB36 million. The revenue, net profit and cash inflow generated from Zilai Renewable Resources from the acquisition date to the end of the period is RMB10 million, RMB2 million and RMB8 million, respectively.

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9 INVESTMENTS IN SUBSIDIARIES (CONTINUED)

Notes: (Continued)

(xxx) According to the voting in concert agreement entered into between Fujian Energy Development and another shareholder with 39% equity interests in Chantou Fuzhou Thermal Power, the shareholder agreed to vote the same in respect of significant financial and operating decisions made by the Group. Accordingly, the Group holds 90% of the voting rights and exercises control over Chantou Fuzhou Thermal Power. The fair value of the identifiable net assets of Chantou Fuzhou Thermal Power at the date of acquisition was RMB92 million. Chantou Fuzhou Thermal Power had not commenced operations by the end of the reporting period since the acquisition date. The cash outflow of Chantou Fuzhou Thermal Power from the acquisition date to the end of the period is RMB12 million.

(xxxi) The above subsidiaries are companies established or invested by the Group, which have carried out relevant production and operation business since this year and were newly incorporated into the scope of consolidation this year.

(xxxii) The above companies are subsidiaries acquired by the Group from third parties through asset acquisitions. There are no other businesses and assets other than construction in progress and fixed assets, and the above acquisitions do not involve employees, so there is no output at the acquisition dates. The Company is unable to integrate the aforesaid assets with other inputs and processes to generate outputs at the acquisition completion date. In view of this, management determines that the above acquisitions do not constitute business combinations for accounting purposes, but are accounted for as an asset acquisition.

(xxxiii) Chengde Rongjian was previously a joint venture of Hebei Clean Energy, and another shareholder holds its 51% equity interests. The other shareholder of Chengde Rongjian voluntarily transfers its equity interests in Chengde Rongjian to Hebei Clean Energy for free. Chengde Xinyi is a wholly-owned subsidiary of Chengde Rongjian. The fair value of the identifiable net assets of Chengde Rongjian as at the date of acquisition was RMB9 million, of which RMB4 million was previously accounted as investment in joint venture of Hebei Clean Energy. Gain on bargain purchase recognised in the consolidated statement of profit or loss and other comprehensive income was RMB5 million. Chengde Rongjian had not commenced operations by the end of the reporting period since the acquisition date. The revenue, net profit and cash inflow generated from Chengde Xinyi from the acquisition date to the end of the period is RMB13 million, RMB0.7 million and RMB20 million.

(xxxiv) Shandong Huangtai Power is a subsidiary of Shandong Power, obtained through business merger not under common control without any consideration. The fair value of the identifiable net assets of Shandong Huangtai Power as at the date of acquisition was RMB99 million, of which RMB84 million attributed to non-controlling interests. Gain on bargain purchase recognised in the consolidated statement of profit or loss and other comprehensive income was RMB15 million. The revenue, net loss and cash inflow generated from Shandong Huangtai Power from the acquisition date to the end of the period is RMB50 million, RMB21 million and RMB14 million. Jinan Dongtai Power is a subsidiary of Shandong Huangtai Power. The revenue, net profit and cash inflow generated from Jinan Dongtai Power from the acquisition date to the end of the period is RMB97 million, RMB5 million and RMB27 million.

The above table lists the subsidiaries of the Company which, in the opinion of the directors, principally affected the results for the year or formed a substantial portion of the net assets of the Group. To give details of other subsidiaries would, in the opinion of the directors, result in particulars of excessive length.

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10 OTHER EQUITY INSTRUMENT INVESTMENTS

	As at 31 December	
	2024	2023
Equity securities designated as at FVOCI (non-recycling)		
Unlisted equity investments at fair value		
Ganlong Double-track Railway (Fujian) Co., Ltd. (“Ganlong Railway Fujian”)	**327,585**	380,588
Others	**262,335**	262,335
Total	**589,920**	642,923

The above equity investments were irrevocably designated as at fair value through other comprehensive income as the Group considers these investments to be strategic in nature.

(Amounts expressed in thousands of RMB)

11 POWER GENERATION LICENCE

The movements in the carrying amount of the power generation licence during the years are as follows:

	For the year ended 31 December	
	2024	2023
Beginning of the year	**4,312,514**	4,156,846
Movement:		
Currency translation differences	**(44,751)**	155,668
End of the year	**4,267,763**	4,312,514

The Group acquired the power generation licence in connection with the acquisition of Tuas Power. The power generation licence was initially recognised at fair value at the acquisition date. Tuas Power operates power plants in Singapore pursuant to the licence granted by the Energy Market Authority for a period of 30 years from 2003 until 2032. The licence was extended to 2044 during 2011 with minimal costs and is subject to further renewal. The Group expects that the applicable rules and regulations surrounding the renewal can be complied with based on the current market framework. The Group assessed the useful life of the power generation licence at 31 December 2024 to be indefinite and therefore the licence is not amortised.

Impairment test of the power generation licence

The power generation licence belongs to and has been assigned to Tuas Power's CGU. There was no impairment provided for the power generation licence for the year ended 31 December 2024 (2023: Nil). For key assumptions used for value-in-use calculations, please refer to Note 14 for details.

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12 MINING RIGHTS

The movements in the carrying amount of mining rights during the years are as follows:

	For the year ended 31 December	
	2024	2023
Beginning of the year		
Cost	**2,506,867**	2,506,867
Accumulated impairment losses	**(895,381)**	(895,381)
Accumulated amortisation	**(2,371)**	–
Net book value	**1,609,115**	1,611,486
Movements:		
Amortisation	**–**	(2,371)
End of the year	**1,609,115**	1,609,115
Cost	**2,506,867**	2,506,867
Accumulated impairment losses	**(895,381)**	(895,381)
Accumulated amortisation	**(2,371)**	(2,371)
Net book value	**1,609,115**	1,609,115

In 2024, no impairment losses for mining rights (2023: Nil) have been recognised. In 2023, mining rights with original cost amounting to RMB796 million owned by Mining Branch of Yunnan Diandong Yuwang Energy Limited Company, one of the Company's subsidiary, are amortised based on the units of production method over estimated proved and probable reserves of the mines, which were recognised in other operating expenses. In 2024, the coal mine prioritised gas control efforts, resulting in no production during the year and thus no amortisation in the year.

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13 DERIVATIVE FINANCIAL INSTRUMENTS

Details of derivative financial instruments are as follows:

	As at 31 December	
	2024	2023
Derivative financial assets		
– Hedging instruments for cash flow hedge (fuel swap contracts)	**60,258**	54,387
– Hedging instruments for cash flow hedge (exchange forward contracts)	**233,912**	3,379
– Hedging instruments for cash flow hedge (interest rate swap contracts)	**–**	2,261
Total	**294,170**	60,027
Less: non-current portion		
– Hedging instruments for cash flow hedge (fuel swap contracts)	**567**	553
– Hedging instruments for cash flow hedge (exchange forward contracts)	**37,538**	63
Total non-current portion	**38,105**	616
Total current portion	**256,065**	59,411
Derivative financial liabilities		
– Hedging instruments for cash flow hedge (fuel swap contracts)	**269,983**	274,144
– Hedging instruments for cash flow hedge (exchange forward contracts)	**165,326**	391,055
– Hedging instruments for cash flow hedge (interest rate swap contracts)	**12,926**	29,615
Total	**448,235**	694,814
Less: non-current portion		
– Hedging instruments for cash flow hedge (fuel swap contracts)	**142,871**	97,333
– Hedging instruments for cash flow hedge (exchange forward contracts)	**117,861**	327,689
– Hedging instruments for cash flow hedge (interest rate swap contracts)	**10,889**	29,615
Total non-current portion	**271,621**	454,637
Total current portion	**176,614**	240,177

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13 DERIVATIVE FINANCIAL INSTRUMENTS (CONTINUED)

For the years ended 31 December 2024 and 2023, no material ineffective portion arising from cash flow hedges was recognised in profit or loss.

TPG uses foreign currency forward contracts which are designated as hedging instruments in cash flow hedges of purchase in US$. It also uses fuel oil swap contracts to hedge its fuel price risk arising from highly probable forecast purchases of fuel purchases.

TPSTMWR uses various interest rate swap contracts to hedge floating quarterly interest payments on borrowings with maturity dates up to 2044. The notional principal amount of these outstanding interest rate swap contracts at 31 December 2024 was S$128 million (RMB equivalent of RMB681 million) (31 December 2023: S$132 million (RMB equivalent of RMB710 million)). Through these arrangements, TPG and TPSTMWR swapped original floating interest (6-month FSOR and 3-month FSOR) to annual fixed interest determined by individual swap contracts. These interest rate swap contracts are settled quarterly from September 2018 to June 2044. As at 31 December 2024, the remaining interest rate swap contracts were carried on the consolidated statement of financial position as financial liabilities of RMB13 million (31 December 2023: financial liabilities of RMB27 million).

There is an economic relationship between the hedged items and the hedging instruments as the terms of the exchange forward contracts, fuel swap contracts and interest rate swap contracts match the terms of the expected highly probable forecast transactions and borrowings (i.e., notional amount and expected payment date). To test the hedge effectiveness, the Group uses either the cumulative volume/dollar offset method or the hypothetical derivative method where it compares the changes in the fair value of the hedging instruments against the changes in fair value of the hedged items attributable to the hedged risks.

The hedge ineffectiveness can arise from:

(a) Differences in the timing of the cash flows of the hedged items and the hedging instruments.

(b) Different indexes (and accordingly different curves) linked to the hedged risk of the hedged items and hedging instruments.

(c) The counterparties' credit risk differently impacting the fair value movements of the hedging instruments and hedged items.

(d) Changes to the forecasted amount of cash flows of hedged items and hedging instruments.

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13 DERIVATIVE FINANCIAL INSTRUMENTS (CONTINUED)

The analysis of contractual cash inflows/(outflows) of major derivative financial instruments is as follows:

	Carrying amounts	Contractual cash flows	Maturity: Within 1 year	Maturity: Between 1 and 5 years	Maturity: After 5 years
As at 31 December 2024					
Derivative financial assets					
Fuel derivatives used for hedging (net settlement)	60,258	61,059	603	60,456	–
Forward exchange contracts used for hedging					
– inflows	–	10,681,648	8,415,067	2,266,581	–
– outflows	–	(10,444,023)	(8,216,669)	(2,227,354)	–
	233,912	237,625	198,398	39,227	–
Derivative financial liabilities					
Fuel derivatives used for hedging (net settlement)	(269,983)	(284,429)	(153,526)	(130,903)	–
Forward exchange contracts used for hedging					
– inflows	–	2,651,383	228,654	2,422,729	–
– outflows	–	(2,835,141)	(276,808)	(2,558,333)	–
	(165,326)	(183,758)	(48,154)	(135,604)	–
Net-settled interest rate swaps used for hedging – net cash outflows	(12,926)	(16,380)	(2,084)	(6,876)	(7,420)

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13 DERIVATIVE FINANCIAL INSTRUMENTS (CONTINUED)

The analysis of contractual cash inflows/(outflows) of major derivative financial instruments is as follows: (Continued)

			Maturity		
	Carrying amounts	Contractual cash flows	Within 1 year	Between 1 and 5 years	After 5 years
As at 31 December 2023					
Derivative financial assets					
Fuel derivatives used for hedging (net settlement)	54,387	54,387	53,834	553	–
Forward exchange contracts used for hedging					
– inflows	–	507,259	464,598	42,661	–
– outflows	–	(503,869)	(461,247)	(42,622)	–
	3,379	3,390	3,351	39	–
Derivative financial liabilities					
Fuel derivatives used for hedging (net settlement)	(274,144)	(274,144)	(176,811)	(97,333)	–
Forward exchange contracts used for hedging					
– inflows	–	11,331,819	3,071,437	8,260,382	–
– outflows	–	(11,768,394)	(3,135,928)	(8,632,466)	–
	(391,055)	(436,575)	(64,491)	(372,084)	–
Net-settled interest rate swaps used for hedging					
– net cash outflows	(27,354)	(38,113)	2,288	(14,334)	(26,067)

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14 GOODWILL

The movements of goodwill during the years are as follows:

	For the year ended 31 December	
	2024	2023
Beginning of the year		
Cost	**19,757,467**	19,325,582
Accumulated impairment losses	**(5,247,728)**	(4,940,673)
Net book value	**14,509,739**	14,384,909
Movements:		
Impairment charge for the year	**–**	(295,001)
Currency translation differences – cost	**(124,159)**	431,885
Currency translation differences – impairment	**3,466**	(12,054)
End of the year	**14,389,046**	14,509,739
Cost	**19,633,308**	19,757,467
Accumulated impairment losses	**(5,244,262)**	(5,247,728)
Net book value	**14,389,046**	14,509,739

Impairment tests for goodwill

In the impairment assessment of the Group, goodwill is allocated to a CGU or CGUs that were expected to benefit from the synergies of the business combination and is allocated to the relevant CGUs based on operating areas. The CGUs are consistent with those used on the purchase dates and in the impairment tests in previous years. The carrying amounts of the major goodwill allocated to individual CGU are as follows:

	2024	2023
PRC power segment:		
Wuhan Power	**518,484**	518,484
Overseas power segment:		
Tuas Power	**11,509,981**	11,630,674

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14 GOODWILL (CONTINUED)

Impairment tests for goodwill (Continued)

The recoverable amount of a CGU is determined based on value-in-use calculations. The cash flow projections of CGUs are based on management's forecasted cash flows in the next five years. Based on existing production capacity, the domestic subsidiaries of the Company expect cash flows beyond such periods will be similar to that in the 5th year and thus a zero terminal growth rate is utilised in the forecasts. For Tuas Power, cash flows beyond the 5th year is extrapolated using a terminal growth rate of 2.0%, which is not greater than the forecasted growth rate as stipulated in the relevant report issued by the Energy Market Authority of Singapore ("EMA").

Key assumptions used for value-in-use calculations:

1) PRC power segment

For goodwill of domestic CGUs, the key assumptions applied in the impairment tests include the expected future sales volumes (power generation hours), fuel prices and discount rates. Management determined these assumptions based on past performance and its expectations on market development. The discount rates used reflect specific risks relating to individual CGUs. Based on the impairment assessment, there were no recognised goodwill impairment losses in 2024 (2023: RMB295 million).

For the goodwill allocated to CGUs in the PRC, management has assessed that two of the most sensitive key assumptions are future sales volume and fuel price. If future sales volume had decreased by 1% or 5% from management's estimates, while other variables stay constant with the expectations, the Group would have to recognise impairment losses against goodwill by approximately RMB60 million and RMB1,092 million (31 December 2023: RMB63 million and RMB726 million), respectively. If fuel price had increased by 1% or 5% from management's estimates, while other variables stay constant with the expectations, the Group would have to recognise impairment losses against goodwill of approximately RMB289 million and RMB1,413 million (31 December 2023: RMB244 million and RMB1,637 million), respectively.

2) Overseas power segment

For the goodwill allocated to Tuas Power, the key assumptions applied in the impairment model include the expected future sales volume, gross margin, terminal growth rate and discount rate. Management determined these key assumptions based on past performance and its expectations on market development.

The EMA released its Singapore Electricity Market Outlook ("SEMO 2021") on 10 November 2021, stating that the annual system demand and system peak demand are projected to grow at a CAGR of between 2.8% and 3.2% over the next 10 years, from 2022 to 2032, taking into account various factors including demographic, climate and economic impacts as well as projected demand from new high-growth sectors such as data centres. According to SEMO 2021 report, the compound annual growth rate of the electricity market from 2009 to 2020 was about 2.2%. The market share of Singapore Tuas Power in Singapore has remained stable, with the market share ratios being 21.4%, 19.2%, 22.3%, 20.4%, and 19.19% in 2020, 2021, 2022, 2023 and 2024, respectively. The sales volumes of Singapore Tuas Power from 2025 to 2029 are forecasted based on its past performance, and a terminal growth rate of 2% (2023: 2%) is utilised in the forecast.

(Amounts expressed in thousands of RMB)

14 GOODWILL (CONTINUED)

Impairment tests for goodwill (Continued)

Key assumptions used for value-in-use calculations: (Continued)

2) Overseas power segment (Continued)

The gross profit per unit for the forecast period and the perpetuity period of Tuas Power is as follows:

Electricity Sales Gross Profit Unit: Singapore Dollars/MWh (Megawatt-hour)	**2024 Annual Impairment Testing Model**
2025	**49.97**
2026	**46.26**
2027	**43.77**
2028	**43.79**
2029	**43.41**
Perpetuity period	**44.28**

Management used the after-tax discount rate for the power generation industry for 2021 and 2022 published by the EMA in November 2020 to calculate the pre-tax discount rate used for value-in-use calculations of Tuas Power, which is 9.74% for the year ended 31 December 2024 (2023: 9.91%).

According to the impairment assessment, there was no impairment provided for the goodwill of Tuas Power for the year ended 31 December 2024 (2023: Nil). In 2024 and 2023, the fluctuation of goodwill in respect of Tuas Power was due to currency translation differences.

For the goodwill allocated to the CGU in Tuas Power, management has assessed that one of the most sensitive key assumptions is the pre-tax discount rate which was arrived at based on weighted average cost of capital. An absolute increase in the pre-tax discount rate of 0.5% (31 December 2023: 0.5%) would result in a decrease of approximately RMB1,091 million (31 December 2023: RMB1,106 million) in the recoverable amount of the CGU.

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15 OTHER NON-CURRENT ASSETS

Details of other non-current assets are as follows:

	As at 31 December	
	2024	2023
Finance lease receivables (i) (Note 41)	**7,115,271**	7,887,747
VAT recoverable	**8,976,289**	6,992,811
Pre-construction cost (ii)	**1,068,630**	1,780,828
Intangible assets (iii)	**832,572**	699,056
Prepaid connection fees	**15,270**	19,713
Contract assets	**1,051,906**	1,073,544
Others	**3,285,240**	2,853,959
Total	**22,345,178**	21,307,658

Notes:

(i) Ruyi Pakistan Energy entered into a power purchase agreement with CPPA-G to sell all of the electricity produced with a regulated tariff mechanism approved by the National Electric Power Regulatory Authority. In accordance with the power purchase agreement and tariff mechanism, almost all the risks and rewards in relation to the power assets were in substance transferred to CPPA-G and therefore were accounted for as a finance lease to CPPA-G. Please refer to Note 41 for other details of finance lease receivables.

(ii) In 2024, for early-stage projects with indicators of impairment due to project suspension or postponement, the Group estimated their recoverable amount based on the net amount of fair value less costs to sell. When determining the recoverable amount, the Group evaluated whether the formed pre-construction results could continue to be utilised or sold separately, and determined their fair value based on the carrying amount or similar market prices. According to the impairment assessment results, the Group had provided an impairment loss of RMB36.29 million for pre-construction cost of the early-stage projects that were under suspension or postponement.

(iii) The intangible assets primarily consist of software, patented technologies, etc. In 2024, an impairment loss of RMB1.39 million was provided for the intangible assets (2023: Nil).

(Amounts expressed in thousands of RMB)

16 INVENTORIES

Inventories comprised:

	As at 31 December	
	2024	2023
Fuel for power generation	**12,347,722**	10,710,646
Material and supplies	**1,339,641**	1,410,314
	13,687,363	12,120,960
Less: provision for inventory obsolescence	**242,969**	221,621
Total	**13,444,394**	11,899,339

Movements of provision for inventory obsolescence during the years are analysed as follows:

	For the year ended 31 December	
	2024	2023
Beginning of the year	**(221,621)**	(183,803)
Provision	**(45,062)**	(40,972)
Reversal	**1,986**	191
Write-off*	**19,860**	8,278
Currency translation differences	**1,868**	(5,315)
End of the year	**(242,969)**	(221,621)

* In 2024, approximately RMB20 million (2023: RMB8 million) provision was written-off for the material and supplies which was provided for inventory provision in previous years.

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17 OTHER RECEIVABLES AND ASSETS

Other receivables and assets comprised the following:

	As at 31 December	
	2024	2023
Prepayments for inventories	**4,453,979**	5,571,287
Prepaid income tax	**149,539**	148,075
Others	**472,988**	285,585
Subtotal of prepayments	**5,076,506**	6,004,947
Less: Loss allowance	**–**	2,638
Total prepayments, net	**5,076,506**	6,002,309
Dividends receivable	**241,970**	341,078
Receivables from sales of fuel	**79,315**	69,039
Others	**3,488,644**	2,941,228
Subtotal of other receivables	**3,809,929**	3,351,345
Less: Loss allowance	**308,114**	315,616
Total other receivables, net	**3,501,815**	3,035,729
VAT recoverable	**4,593,354**	4,161,655
Finance lease receivables (Note 41)	**1,049,887**	967,102
Designated loan to a joint venture	**–**	70,123
Others	**491,608**	641,245
Subtotal of other assets	**6,134,849**	5,840,125
Less: Loss allowance	**167,096**	127,870
Total other assets, net	**5,967,753**	5,712,255
Gross total	**15,021,284**	15,196,417
Net total	**14,546,074**	14,750,293

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17 OTHER RECEIVABLES AND ASSETS (CONTINUED)

Please refer to Note 36 for details of other receivables and assets due from the related parties. The Group does not hold any collateral or other credit enhancements over its other receivables. The other receivables are non-interest-bearing.

The gross amounts of other receivables are denominated in the following currencies:

	As at 31 December	
	2024	2023
RMB	**2,921,712**	2,530,722
S$ (RMB equivalent)	**211,343**	166,160
US$ (RMB equivalent)	**5,488**	3,548
PKR (RMB equivalent)	**671,386**	650,915
Total	**3,809,929**	3,351,345

Movements of provision for loss allowance during the years are analysed as follows:

	For the year ended 31 December	
	2024	2023
Beginning of the year	**(446,124)**	(362,898)
Provision	**(48,117)**	(122,430)
Reversal	**28,721**	–
Currency translation differences	**(9,690)**	39,204
End of the year	**(475,210)**	(446,124)

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18 ACCOUNTS AND NOTES RECEIVABLES

Accounts and notes receivables comprised the following:

	As at 31 December	
	2024	2023
Accounts receivable	**47,802,397**	45,956,773
Notes receivable	**419,949**	1,314,425
	48,222,346	47,271,198
Less: Loss allowance	**149,122**	130,524
Total	**48,073,224**	47,140,674
Analysed into:		
Accounts receivable		
– At amortised cost	**47,802,397**	45,956,773
Notes receivable		
– At amortised cost	**419,949**	1,314,425

The gross amounts of accounts receivable and notes receivable are denominated in the following currencies:

	As at 31 December	
	2024	2023
RMB	**45,622,075**	43,345,176
S$ (RMB equivalent)	**1,153,479**	1,744,400
US$ (RMB equivalent)	**30,572**	59,716
PKR (RMB equivalent)	**1,416,220**	2,121,906
Total	**48,222,346**	47,271,198

The Group usually grants credit periods of about one month to domestic local power grid customers from the end of the month in which the sales are made. SinoSing Power provides credit periods that range from 5 to 60 days from the dates of billing. Certain accounts receivable of Singapore subsidiaries are backed by bankers' guarantees and/or deposits from customers. It is not practicable to determine the fair value of the collateral that corresponds to these accounts receivable. Ruyi Pakistan Energy's accounts receivable from CPPA-G are usually recovered within 5 months under the power purchase agreement signed with CPPA-G.

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18 ACCOUNTS AND NOTES RECEIVABLES (CONTINUED)

The Group, except for Singapore subsidiaries, does not hold any collateral or other credit enhancements over its accounts receivable. The accounts receivable are non-interest-bearing.

For the collateral of accounts receivable, please refer to Note 24 and 30 for details.

For the collateral of notes receivable, please refer to Note 30 for details.

Movements of provision for loss allowance during the years are analysed as follows:

	For the year ended 31 December	
	2024	2023
Beginning of the year	**(130,524)**	(124,254)
Provision	**(19,861)**	(9,043)
Reversal	**885**	2,487
Write-off	**308**	442
Currency translation differences	**70**	(156)
End of the year	**(149,122)**	(130,524)

An ageing analysis of accounts and notes receivables based on the invoice date was as follows:

	As at 31 December	
	2024	2023
Within 1 year	**46,977,508**	46,235,487
Between 1 and 2 years	**401,481**	694,239
Between 2 and 3 years	**588,608**	152,760
Over 3 years	**254,749**	188,712
Total	**48,222,346**	47,271,198

As at 31 December 2024, the maturity period of the notes receivable ranged from 1 to 12 months (31 December 2023: from 1 to 12 months).

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19 COMPANY'S STATEMENT OF CHANGES IN EQUITY

			Capital surplus							
	Share capital	Other equity instruments	Share premium	Fair value reserve (non-recycling)	Other capital reserve	Subtotal	Surplus reserves	Reserve funds	Retained earnings	Total equity
Balance as at 1 January 2024	15,698,093	79,626,169	24,987,019	(382,150)	1,007,446	25,612,315	8,140,030	101,078	23,063,860	152,241,545
Profit/(loss) for the year	–	2,924,430	–	–	–	–	–	–	(2,172,628)	751,802
Other comprehensive income for the year:										
Fair value changes of other equity investment instruments, net of tax	–	–	–	–	(39,753)	(39,753)	–	–	–	(39,753)
Total comprehensive income for the year	–	2,924,430	–	–	(39,753)	(39,753)	–	–	(2,172,628)	712,049
Dividends relating to 2023	–	–	–	–	–	–	–	–	(3,139,619)	(3,139,619)
Issue of other equity instruments (Note 21)	–	2,051,000	–	–	(13,072)	(13,072)	–	–	–	2,037,928
Redemption of other equity instruments (Note 21)	–	(1,500,000)	–	–	–	–	–	–	–	(1,500,000)
Cumulative distribution of other equity instruments (Note 21)	–	(2,930,903)	–	–	–	–	–	–	–	(2,930,903)
Others	–	–	–	–	–	–	–	30,332	(30,332)	–
Balance as at 31 December 2024	15,698,093	80,170,696	24,987,019	(382,150)	954,621	25,559,490	8,140,030	131,410	17,721,281	147,421,000

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19 COMPANY'S STATEMENT OF CHANGES IN EQUITY (CONTINUED)

			Capital surplus							
	Share capital	Other equity instruments	Share premium	Fair value reserve (non-recycling)	Other capital reserve	Subtotal	Surplus reserves	Reserve funds	Retained earnings	Total equity
Balance as at 1 January 2023	15,698,093	62,083,704	24,987,019	(334,592)	1,027,322	25,679,749	8,140,030	54,381	22,437,629	134,093,586
Profit for the year	–	2,916,280	–	–	–	–	–	–	667,178	3,583,458
Other comprehensive income for the year:										
Fair value changes of other equity investment instruments, net of tax	–	–	–	(43,245)	–	(43,245)	–	–	–	(43,245)
Total comprehensive income for the year	–	2,916,280	–	(43,245)	–	(43,245)	–	–	667,178	3,540,213
Issue of other equity instruments (Note 21)	–	34,000,000	–	–	(19,876)	(19,876)	–	–	–	33,980,124
Redemption of other equity instruments (Note 21)	–	(17,000,000)	–	–	–	–	–	–	–	(17,000,000)
Cumulative distribution of other equity instruments (Note 21)	–	(2,373,815)	–	–	–	–	–	–	–	(2,373,815)
Disposal of equity investments at fair value through other comprehensive income	–	–	–	(4,313)	–	(4,313)	–	–	4,313	–
Transfer from retained profits	–	–	–	–	–	–	–	46,697	(46,697)	–
Others	–	–	–	–	–	–	–	–	1,437	1,437
Balance as at 31 December 2023	15,698,093	79,626,169	24,987,019	(382,150)	1,007,446	25,612,315	8,140,030	101,078	23,063,860	152,241,545

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20 SHARE CAPITAL

	2024		2023	
	Number of shares	Share capital RMB'000	Number of shares	Share capital RMB'000
As at 1 January and 31 December				
A shares	10,997,709,919	10,997,710	10,997,709,919	10,997,710
Overseas listed foreign shares	4,700,383,440	4,700,383	4,700,383,440	4,700,383
Total	15,698,093,359	15,698,093	15,698,093,359	15,698,093

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21 OTHER EQUITY INSTRUMENTS

(a) Other equity instruments as at 31 December 2024

Type of Instruments	Issuance Date	Category	Initial Distribution Rate	Issue Price	Number	Par Value	Initial Period	Conversion Condition	Conversion Result
Yingda Insurance Financing Plan (1st)	September 2018	Equity Instrument	5.79%	–	–	3,283,000	8 years	None	None
Yingda Insurance Financing Plan (2nd)	September 2018	Equity Instrument	5.79%	–	–	827,000	8 years	None	None
Yingda Insurance Financing Plan (3rd)	September 2018	Equity Instrument	5.79%	–	–	890,000	8 years	None	None
China Life Financing Plan (1st)	September 2019	Equity Instrument	5.05%	–	–	2,070,000	8 years	None	None
PICC Financing Plan (1st)	September 2019	Equity Instrument	5.10%	–	–	930,000	10 years	None	None
China Life Financing Plan (2nd)	October 2019	Equity Instrument	5.05%	–	–	2,260,000	8 years	None	None
PICC Financing Plan (2nd)	October 2019	Equity Instrument	5.10%	–	–	1,740,000	10 years	None	None
2020 Perpetual Corporate Bond (1st)(type II)	March 2020	Equity Instrument	3.85%	0.1	10,000,000	1,000,000	5 years	None	None
China Life Financing Plan (3rd)	April 2020	Equity Instrument	4.75%	–	–	3,570,000	8 years	None	None
PICC Financing Plan (3rd)	April 2020	Equity Instrument	4.75%	–	–	930,000	10 years	None	None
PICC Financing Plan (4th)	August 2020	Equity Instrument	4.60%	–	–	3,000,000	10 years	None	None
2022 medium-term notes (5th)	July 2022	Equity Instrument	2.93%	0.1	20,000,000	2,000,000	3 years	None	None
2022 medium-term notes (8th)	September 2022	Equity Instrument	2.78%	0.1	5,000,000	500,000	3 years	None	None
Huaneng Trust (1st)	September 2022	Equity Instrument	2.91%	–	–	2,500,000	5 years	None	None
Huaneng Trust (2nd)	October 2022	Equity Instrument	3.06%	–	–	3,050,000	5 years	None	None
2022 medium-term notes (9th)	October 2022	Equity Instrument	2.78%	0.1	20,000,000	2,000,000	3 years	None	None
2022 medium-term notes (10th)	October 2022	Equity Instrument	2.72%	0.1	20,000,000	2,000,000	3 years	None	None
2022 medium-term notes (11th)	November 2022	Equity Instrument	2.66%	0.1	25,000,000	2,500,000	3 years	None	None
Huaneng Trust (3rd)	November 2022	Equity Instrument	3.11%	–	–	4,000,000	5 years	None	None
Huaneng Trust (4th)	November 2022	Equity Instrument	3.11%	–	–	4,000,000	5 years	None	None
2023 medium-term notes (1st Energy Supply Bond)	January 2023	Equity Instrument	3.93%	0.1	30,000,000	3,000,000	3 years	None	None
2023 medium-term notes (2nd Energy Supply Bond)	February 2023	Equity Instrument	3.74%	0.1	30,000,000	3,000,000	3 years	None	None
2023 medium-term notes (3rd Energy Supply Bond)	February 2023	Equity Instrument	3.55%	0.1	30,000,000	3,000,000	3 years	None	None
2023 medium-term notes (4th Energy Supply Bond)	February 2023	Equity Instrument	3.58%	0.1	25,000,000	2,500,000	3 years	None	None
2023 medium-term notes (5th Energy Supply Bond)	March 2023	Equity Instrument	3.61%	0.1	30,000,000	3,000,000	3 years	None	None
2023 medium-term notes (6th)	March 2023	Equity Instrument	3.38%	0.1	20,000,000	2,000,000	2 years	None	None

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21 OTHER EQUITY INSTRUMENTS (CONTINUED)

(a) Other equity instruments as at 31 December 2024 (CONTINUED)

Type of Instruments	Issuance Date	Category	Initial Distribution Rate	Issue Price	Number	Par Value	Initial Period	Conversion Condition	Conversion Result
2023 medium-term notes (7th Energy Supply Bond)	March 2023	Equity Instrument	3.53%	0.1	25,000,000	2,500,000	3 years	None	None
2023 medium-term notes (8th)	April 2023	Equity Instrument	3.23%	0.1	20,000,000	2,000,000	2 years	None	None
2023 medium-term notes (9th)	April 2023	Equity Instrument	3.21%	0.1	20,000,000	2,000,000	2 years	None	None
2023 medium-term notes (10th)	April 2023	Equity Instrument	3.14%	0.1	15,000,000	1,500,000	2 years	None	None
2023 medium-term notes (11th)	June 2023	Equity Instrument	2.96%	0.1	20,000,000	2,000,000	2 years	None	None
2023 medium-term notes (12th)	June 2023	Equity Instrument	2.92%	0.1	15,000,000	1,500,000	2 years	None	None
2023 medium-term notes (13th)	August 2023	Equity Instrument	2.75%	0.1	20,000,000	2,000,000	2 years	None	None
2023 medium-term notes (14th)	September 2023	Equity Instrument	3.05%	0.1	20,000,000	2,000,000	2 years	None	None
2023 medium-term notes (15th)	September 2023	Equity Instrument	3.08%	0.1	20,000,000	2,000,000	2 years	None	None
Huaneng Trust (5th)	December 2024	Equity Instrument	2.40%	–	–	2,051,000	5 years	None	None
Total						79,101,000			

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21 OTHER EQUITY INSTRUMENTS (CONTINUED)

(b) Major provisions

In 2018, the Company issued three tranches of Yingda Insurance Financing Plan (the "Yingda plan") with aggregate proceeds of RMB5,000 million. The Yingda plan has no fixed period with an initial distribution rate of 5.79%. The interest of the financing plan is recorded as distributions, which are paid annually in arrears in June and December each year and may be deferred at the discretion of the Company unless compulsory payment events (e.g. distributions to ordinary shareholders of the Company or reduction of the registered capital of the Company) occur. The Company has the right to defer current interest and all deferred interest. The Yingda plan has no fixed maturity date and is callable at the Company's discretion in whole at each distribution date after the 8th year of issuance, or the payment of the principal may be deferred at each distribution date mentioned above. The applicable distribution rate will be reset during the period from the 9th to the 11th years after the issuance, the period from the 11th to the 13th years after the issuance and the 13th year onwards after the issuance, to the higher of the initial distribution rate plus 300 basis points and the 10-year treasury bond yield in the 9th year after the issuance plus 600 basis points, the higher of the initial distribution rate plus 600 basis points and the 10-year treasury bond yield in the 11th year after the issuance plus 900 basis points and the higher of the initial distribution rate plus 900 basis points and the 10-year treasury bond yield in the 13th year after the issuance plus 1,200 basis points, respectively. As at 24 November 2021, the Company signed a supplement agreement with regard to amending the clause of the applicable distribution rate. The applicable distribution rate will be reset during the period from the 9th year after the issuance, to the basis rate plus 300 basis points, and will remain 8.79% afterwards.

In 2019, the Company issued two tranches of China Life Financing Plan (the "China Life plan") with aggregate proceeds of RMB4,330 million. The China Life plan has no fixed period with an initial distribution rate of 5.05%. The interests of the China Life plan are recorded as distributions, which are paid annually in arrears in March, June, September and December each year and may be deferred at the discretion of the Company unless compulsory payment events (distributions to ordinary shareholders of the Company or reduction of the registered capital of the Company) occur. The Company has the right to defer current interest and all deferred interest. The China Life plan has no fixed maturity date and is callable at the Company's discretion in whole at each distribution date after the 8th year of issuance, or the payment of the principal may be deferred at each distribution date mentioned above. The applicable distribution rate will be reset during the period from the 9th year after the issuance, to the basis rate plus 300 basis points, and will remain 8.05% afterwards.

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21 OTHER EQUITY INSTRUMENTS (CONTINUED)

(b) Major provisions (Continued)

In 2019, the Company issued two tranches of PICC Financing Plan ("the PICC plan") with aggregate proceeds of RMB2,670 million. The PICC plan has no fixed period with an initial distribution rate of 5.10%. The interest of the PICC plan is recorded as distributions, which are paid annually in arrears in March, June, September and December each year and may be deferred at the discretion of the Company unless compulsory payment events (distributions to ordinary shareholders of the Company or reduction of the registered capital of the Company) occur. The Company has the right to defer current interest and all deferred interest. The PICC plan has no fixed maturity date and is callable at the Company's discretion in whole at each distribution date after the 10th year of issuance, or the payment of the principal may be deferred at each distribution date mentioned above. The applicable distribution rate will be reset during the period from the 11th year after the issuance, to the basis rate plus 300 basis points, and will remain 8.10% afterwards.

In November 2019, the Company issued medium-term notes (type II) with net proceeds of approximately RMB1,500 million. The medium-term notes are issued at par value with an initial distribution rate of 4.53%. The interest of the medium-term notes is recorded as distributions, which are paid annually in arrears in November each year and may be deferred at the discretion of the Company unless compulsory distribution payment events (distributions to ordinary shareholders of the Company or reduction of the registered capital of the Company) occur. The Company has the right to defer current interests and all deferred interest. The medium-term notes have no fixed maturity date and are callable at the Company's discretion at specific time, and the payment of the principal may be deferred for each renewal period to 5 years. The applicable distribution rate will be reset on the first call date and for each renewal period after the first call date, to the sum of the applicable benchmark interest rate, the initial spread and 300 basis points per annum, and will remain it afterwards. On the first call date of 2019 medium-term notes of RMB1,500 million, the Company decided to exercise the callable option. The notes were redeemed in whole on 4 November 2024.

In March 2020, the Company issued perpetual corporate bonds (type II) with net proceeds of approximately RMB1,000 million. The perpetual corporate bonds are issued at par value with an initial distribution rate of 3.85%. The interest of the perpetual corporate bonds is recorded as distributions, which are paid annually in arrears in March each year and may be deferred at the discretion of the Company unless compulsory distribution payment events (e.g. distributions to ordinary shareholders of the Company or reduction of the registered capital of the Company) occur. The Company has the right to defer current interest and all deferred interest. The perpetual corporate bonds have no fixed maturity date and are callable at the Company's discretion in whole in February 2025, and the payment of the principal may be deferred for each renewal period to 5 years. The applicable distribution rate will be reset on the first call date and for each renewal period after the first call date, to the sum of the applicable benchmark interest rate, the initial spread and 300 basis points per annum, and will remain it afterwards.

21 OTHER EQUITY INSTRUMENTS (CONTINUED)

(b) Major provisions (Continued)

In April 2020, the Company issued China Life Financing Plan ("the China Life plan") with proceeds of RMB3,570 million. The China Life plan has no fixed period with an initial distribution rate of 4.75%. The interest of the China Life plan is recorded as distributions, which are paid annually in arrears in March, June, September and December each year and may be deferred at the discretion of the Company unless compulsory payment events (distributions to ordinary shareholders of the Company or reduction of the registered capital of the Company) occur. The Company has the right to defer current interest and all deferred interest. The China Life plan has no fixed maturity date and is callable at the Company's discretion in whole at each distribution date after the 8th year of issuance, or the payment of the principal may be deferred at each distribution date mentioned above. The applicable distribution rate will be reset during the period from the 9th year after the issuance, to the basis rate plus 300 basis points, and will remain 7.75% afterwards.

In April 2020, the Company issued the third tranche of the PICC plan with proceeds of RMB930 million. The PICC plan has no fixed period with an initial distribution rate of 4.75%. The interest of the PICC plan is recorded as distributions, which are paid annually in arrears in March, June, September and December each year and may be deferred at the discretion of the Company unless compulsory payment events (distributions to ordinary shareholders of the Company or reduction of the registered capital of the Company) occur. The Company has the right to defer current interest and all deferred interest. The PICC plan has no fixed maturity date and is callable at the Company's discretion in whole at each distribution date after the 10th year of issuance, or the payment of the principal may be deferred at each distribution date mentioned above. The applicable distribution rate will be reset during the period from the 11th year after the issuance, to the basis rate plus 300 basis points, and will remain 7.75% afterwards.

In August 2020, the Company issued the fourth tranche of the PICC plan with proceeds of RMB3,000 million. The PICC plan has no fixed period with an initial distribution rate of 4.60%. The interest of the PICC plan is recorded as distributions, which are paid annually in arrears in March, June, September and December each year and may be deferred at the discretion of the Company unless compulsory payment events (distributions to ordinary shareholders of the Company or reduction of the registered capital of the Company) occur. The Company has the right to defer current interest and all deferred interest. The PICC plan has no fixed maturity date and is callable at the Company's discretion in whole at each distribution date after the 10th year of issuance, or the payment of the principal may be deferred at each distribution date mentioned above. The applicable distribution rate will be reset during the period from the 11th year after the issuance, to the basis rate plus 300 basis points, and will remain 7.60% afterwards.

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21 OTHER EQUITY INSTRUMENTS (CONTINUED)

(b) Major provisions (Continued)

In July 2022, the Company issued medium-term notes with net proceeds of approximately RMB2,000 million. The medium-term notes are issued at par value with an initial distribution rate of 2.93%. The interest of the medium-term notes is recorded as distributions, which are paid annually in arrears in July each year and may be deferred at the discretion of the Company unless compulsory distribution payment events (distributions to ordinary shareholders of the Company or reduction of the registered capital of the Company) occur. The Company has the right to defer current interest and all deferred interest. The medium-term notes have no fixed maturity date and are callable at the Company's discretion at specific time, and the payment of the principal may be deferred for each renewal period to 3 years. The applicable distribution rate will be reset on the first call date and for each renewal period after the first call date, to the sum of the applicable benchmark interest rate, the initial spread and 300 basis points per annum, and will remain it afterwards.

In September 2022, the Company issued medium-term notes with net proceeds of approximately RMB500 million. The medium-term notes are issued at par value with an initial distribution rate of 2.78%. The interest of the medium-term notes is recorded as distributions, which are paid annually in arrears in September each year and may be deferred at the discretion of the Company unless compulsory distribution payment events (distributions to ordinary shareholders of the Company or reduction of the registered capital of the Company) occur. The Company has the right to defer current interest and all deferred interest. The medium-term notes have no fixed maturity date and are callable at the Company's discretion at specific time, and the payment of the principal may be deferred for each renewal period to 3 years. The applicable distribution rate will be reset on the first call date and for each renewal period after the first call date, to the sum of the applicable benchmark interest rate, the initial spread and 300 basis points per annum, and will remain it afterwards.

In September 2022, the Company issued the first tranche of the Huaneng Trust Yingfeng No.1 Single Fund Trust ("Huaneng Trust (1st)") with the proceeds of RMB2,500 million. Huaneng Trust (1st) has no fixed period with an initial distribution rate of 2.91%. The interest of Huaneng Trust (1st) is recorded as distributions, which is paid annually in arrears in August each year and may be deferred at the discretion of the Company unless compulsory payment events (distributions to ordinary shareholders of the Company or reduction of the registered capital of the Company or liquidation or bankruptcy the Company) occur. The Company has the right to defer current interest and all deferred interest. Huaneng Trust (1st) has no fixed maturity date and is callable at the Company's discretion in whole at each distribution date after the 5th year of issuance, or the payment of the principal may be deferred at each distribution date mentioned above. The applicable distribution rate will be reset during the period from the 6th year after the issuance, to the basis rate plus 300 basis points, and will remain 5.91% afterwards.

21 OTHER EQUITY INSTRUMENTS (CONTINUED)

(b) Major provisions (Continued)

In October 2022, the Company issued the second tranche of the Huaneng Trust Yingfeng No.1 Single Fund Trust ("Huaneng Trust (2nd)") with the proceeds of RMB3,050 million. Huaneng Trust (2nd) has no fixed period with an initial distribution rate of 3.06%. The interest of Huaneng Trust (2nd) is recorded as distributions, which is paid annually in arrears in September each year and may be deferred at the discretion of the Company unless compulsory payment events (distributions to ordinary shareholders of the Company or reduction of the registered capital of the Company or liquidation or bankruptcy the Company) occur. The Company has the right to defer current interest and all deferred interest. Huaneng Trust (2nd) has no fixed maturity date and is callable at the Company's discretion in whole at each distribution date after the 5th year of issuance, or the payment of the principal may be deferred at each distribution date mentioned above. The applicable distribution rate will be reset during the period from the 6th year after the issuance, to the basis rate plus 300 basis points, and will remain 6.06% afterwards.

In October 2022, the Company issued medium-term notes with net proceeds of approximately RMB2,000 million. The medium-term notes are issued at par value with an initial distribution rate of 2.78%. The interest of the medium-term notes is recorded as distributions, which are paid annually in arrears in October each year and may be deferred at the discretion of the Company unless compulsory distribution payment events (distributions to ordinary shareholders of the Company or reduction of the registered capital of the Company) occur. The Company has the right to defer current interest and all deferred interest. The medium-term notes have no fixed maturity date and are callable at the Company's discretion at specific time, and the payment of the principal may be deferred for each renewal period to 3 years. The applicable distribution rate will be reset on the first call date and for each renewal period after the first call date, to the sum of the applicable benchmark interest rate, the initial spread and 300 basis points per annum, and will remain it afterwards.

In October 2022, the Company issued medium-term notes with net proceeds of approximately RMB2,000 million. The medium-term notes are issued at par value with an initial distribution rate of 2.72%. The interest of the medium-term notes is recorded as distributions, which are paid annually in arrears in October each year and may be deferred at the discretion of the Company unless compulsory distribution payment events (distributions to ordinary shareholders of the Company or reduction of the registered capital of the Company) occur. The Company has the right to defer current interest and all deferred interest. The medium-term notes have no fixed maturity date and are callable at the Company's discretion at specific time, and the payment of the principal may be deferred for each renewal period to 3 years. The applicable distribution rate will be reset on the first call date and for each renewal period after the first call date, to the sum of the applicable benchmark interest rate, the initial spread and 300 basis points per annum, and will remain it afterwards.

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21 OTHER EQUITY INSTRUMENTS (CONTINUED)

(b) Major provisions (Continued)

In November 2022, the Company issued medium-term notes with net proceeds of approximately RMB2,500 million. The medium-term notes are issued at par value with an initial distribution rate of 2.66%. The interest of the medium-term notes is recorded as distributions, which are paid annually in arrears in November each year and may be deferred at the discretion of the Company unless compulsory distribution payment events (distributions to ordinary shareholders of the Company or reduction of the registered capital of the Company) occur. The Company has the right to defer current interest and all deferred interest. The medium-term notes have no fixed maturity date and are callable at the Company's discretion at specific time, and the payment of the principal may be deferred for each renewal period to 3 years. The applicable distribution rate will be reset on the first call date and for each renewal period after the first call date, to the sum of the applicable benchmark interest rate, the initial spread and 300 basis points per annum, and will remain it afterwards.

In November 2022, the Company issued the third and fourth tranches of Huaneng Trust Yingfeng No.1 Single Fund Trust ("Huaneng Trust (3rd) and Huaneng Trust (4th)") with the proceeds of RMB4,000 million and RMB4,000 million, respectively. Huaneng Trust (3rd) and Huaneng Trust (4th) have no fixed period with an initial distribution rate of 3.11%. The interest of Huaneng Trust (3rd) and Huaneng Trust (4th) is recorded as distributions, which are paid annually in arrears in October each year and may be deferred at the discretion of the Company unless compulsory payment events (distributions to ordinary shareholders of the Company or reduction of the registered capital of the Company or liquidation or bankruptcy the Company) occur. The Company has the right to defer current interest and all deferred interest. Huaneng Trust (3rd) and Huaneng Trust (4th) have no fixed maturity date and are callable at the Company's discretion in whole at each distribution date after the 5th year of issuance, or the payment of the principal may be deferred at each distribution date mentioned above. The applicable distribution rate will be reset during the period from the 6th year after the issuance, to the basis rate plus 300 basis points, and will remain 6.11% afterwards.

In January 2023, the Company issued medium-term notes with net proceeds of approximately RMB3,000 million. The medium-term notes are issued at par value with an initial distribution rate of 3.93%. The interest of the medium-term notes is recorded as distributions, which are paid annually in arrears in January in each year and may be deferred at the discretion of the Company unless compulsory distribution payment events (distributions to ordinary shareholders of the Company or reduction of the registered capital of the Company) occur. The Company has the right to defer current interest and all deferred interest. The medium-term notes have no fixed maturity date and are callable at the Company's discretion at specific time, and the payment of the principal may be deferred for each renewal period to 3 years. The applicable distribution rate will be reset on the first call date and for each renewal period after the first call date, to the sum of the applicable benchmark interest rate, the initial spread and 300 basis points per annum, and will remain it afterwards.

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21 OTHER EQUITY INSTRUMENTS (CONTINUED)

(b) Major provisions (Continued)

In February 2023, the Company issued three tranches of medium-term notes (Energy Supply Bond) with net proceeds of approximately RMB3,000 million, RMB3,000 million and RMB2,500 million. The medium-term notes are issued at par value with an initial distribution rate of 3.74%, 3.55% and 3.58% respectively. The interest of the medium-term notes is recorded as distributions, which are paid annually in arrears in February in each year and may be deferred at the discretion of the Company unless compulsory distribution payment events (distributions to ordinary shareholders of the Company or reduction of the registered capital of the Company) occur. The Company has the right to defer current interest and all deferred interest. The medium-term notes have no fixed maturity date and are callable at the Company's discretion at specific time, and the payment of the principal may be deferred for each renewal period to 3 years. The applicable distribution rate will be reset on the first call date and for each renewal period after the first call date, to the sum of the applicable benchmark interest rate, the initial spread and 300 basis points per annum, and will remain it afterwards.

In March 2023, the Company issued three tranches of medium-term notes with net proceeds of approximately RMB3,000 million, RMB2,000 million and RMB2,500 million. The medium-term notes are issued at par value with an initial distribution rate of 3.61%, 3.38% and 3.53% respectively. The interest of the medium-term notes is recorded as distributions, which are paid annually in arrears in March each year and may be deferred at the discretion of the Company unless compulsory distribution payment events (distributions to ordinary shareholders of the Company or reduction of the registered capital of the Company) occur. The Company has the right to defer current interest and all deferred interest. The medium-term notes have no fixed maturity date and are callable at the Company's discretion at specific time, and the payment of the principal may be deferred for each renewal period to 3 years, 2 years and 3 years respectively. The applicable distribution rate will be reset on the first call date and for each renewal period after the first call date, to the sum of the applicable benchmark interest rate, the initial spread and 300 basis points per annum, and will remain it afterwards.

In April 2023, the Company issued three tranches of medium-term notes with net proceeds of approximately RMB2,000 million, RMB2,000 million and RMB1,500 million. The medium-term notes are issued at par value with an initial distribution rate of 3.23%, 3.21% and 3.14% respectively. The interest of the medium-term notes is recorded as distributions, which are paid annually in arrears in April each year and may be deferred at the discretion of the Company unless compulsory distribution payment events (distributions to ordinary shareholders of the Company or reduction of the registered capital of the Company) occur. The Company has the right to defer current interest and all deferred interest. The medium-term notes have no fixed maturity date and are callable at the Company's discretion at specific time, and the payment of the principal may be deferred for each renewal period to 2 years. The applicable distribution rate will be reset on the first call date and for each renewal period after the first call date, to the sum of the applicable benchmark interest rate, the initial spread, and 300 basis points per annum, and will remain it afterwards.

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21 OTHER EQUITY INSTRUMENTS (CONTINUED)

(b) Major provisions (Continued)

In June 2023, the Company issued two tranches of medium-term notes with net proceeds of approximately RMB2,000 million and RMB1,500 million. The medium-term notes are issued at par value with an initial distribution rate of 2.96% and 2.92% respectively. The interest of the medium-term notes is recorded as distributions, which are paid annually in arrears in June each year and may be deferred at the discretion of the Company unless compulsory distribution payment events (distributions to ordinary shareholders of the Company or reduction of the registered capital of the Company) occur. The Company has the right to defer current interest and all deferred interest. The medium-term notes have no fixed maturity date and are callable at the Company's discretion at specific time, and the payment of the principal may be deferred for each renewal period to 2 years. The applicable distribution rate will be reset on the first call date and for each renewal period after the first call date, to the sum of the applicable benchmark interest rate, the initial spread, and 300 basis points per annum, and will remain it afterwards.

In August 2023, the Company issued medium-term notes with net proceeds of approximately RMB2,000 million. The medium-term notes are issued at par value with an initial distribution rate of 2.75%. The interest of the medium-term notes is recorded as distributions, which are paid annually in arrears in August each year and may be deferred at the discretion of the Company unless compulsory distribution payment events (distributions to ordinary shareholders of the Company or reduction of the registered capital of the Company) occur. The Company has the right to defer current interest and all deferred interest. The medium-term notes have no fixed maturity date and are callable at the Company's discretion at specific time, and the payment of the principal may be deferred for each renewal period to 2 years. The applicable distribution rate will be reset on the first call date and for each renewal period after the first call date, to the sum of the applicable benchmark interest rate, the initial spread, and 300 basis points per annum, and will remain it afterwards.

In September 2023, the Company issued two tranches of medium-term notes with net proceeds of approximately RMB2,000 million and RMB2,000 million. The medium-term notes are issued at par value with an initial distribution rate of 3.05% and 3.08% respectively. The interest of the medium-term notes is recorded as distributions, which are paid annually in arrears in September each year and may be deferred at the discretion of the Company unless compulsory distribution payment events (distributions to ordinary shareholders of the Company or reduction of the registered capital of the Company) occur. The Company has the right to defer current interest and all deferred interest. The medium-term notes have no fixed maturity date and are callable at the Company's discretion at specific time, and the payment of the principal may be deferred for each renewal period to 2 years. The applicable distribution rate will be reset on the first call date and for each renewal period after the first call date, to the sum of the applicable benchmark interest rate, the initial spread, and 300 basis points per annum, and will remain it afterwards.

21 OTHER EQUITY INSTRUMENTS (CONTINUED)

(b) Major provisions (Continued)

In December 2024, the Company issued Huaneng Trust · Huaying Wealth Management Trust ("Huaneng Trust (5th)") with the proceeds of RMB2,051 million. Huaneng Trust (5th) has no fixed period with an initial distribution rate of 2.40%. The interest of Huaneng Trust (5th) is recorded as distributions, which are paid annually in arrears in November each year and may be deferred at the discretion of the Company unless compulsory payment events (distributions to ordinary shareholders of the Company or reduction of the registered capital of the Company or liquidation or bankruptcy the Company) occur. The Company has the right to defer current interest and all deferred interest. Huaneng Trust (5th) has no fixed maturity date and is callable at the Company's discretion in whole at each distribution date after the 5th year of issuance, or the payment of the principal may be deferred at each distribution date mentioned above. The applicable distribution rate will be reset during the period from the 6th year after the issuance, to the basis rate plus 300 basis points, and will remain 5.40% afterwards.

The perpetual corporate bonds, financing plans, Huaneng Trust and medium-term notes were recorded as other equity instruments in the consolidated financial statements. During the year ended 31 December 2024, the profit attributable to holders of other equity instruments, based on the applicable distribution rates, was RMB2,924 million (2023: RMB2,916 million).

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21 OTHER EQUITY INSTRUMENTS (CONTINUED)

(c) Changes of other equity instruments during 2024

Type of Instruments	As at 1 January 2024		Issuance		Cumulative distributions				As at 31 December 2024	
	Number	Amount	Number	Amount	Accrued distribution	Distribution payment	Redemption value	Other reduction	Number	Amount
Yingda Insurance Financing Plan (1st)	–	3,288,808	–	–	193,254	193,254	–	–	–	3,288,808
Yingda Insurance Financing Plan (2nd)	–	828,463	–	–	48,681	48,681	–	–	–	828,463
Yingda Insurance Financing Plan (3rd)	–	891,575	–	–	52,390	52,390	–	–	–	891,575
China Life Financing Plan (1st)	–	2,031,091	–	–	106,277	106,277	–	–	–	2,031,091
PICC Financing Plan (1st)	–	930,923	–	–	48,221	48,221	–	–	–	930,923
China Life Financing Plan (2nd)	–	2,249,983	–	–	116,032	116,032	–	–	–	2,249,983
PICC Financing Plan (2nd)	–	1,741,726	–	–	90,219	90,219	–	–	–	1,741,726
2019 medium-term notes (4th)	15,000,000	1,510,582	–	–	57,368	67,950	1,500,000	–	–	–
2020 Perpetual Corporate Bond (1st)(type II)	10,000,000	1,029,956	–	–	38,500	38,500	–	–	10,000,000	1,029,956
China Life Financing Plan (3rd)	–	3,631,868	–	–	172,401	172,401	–	–	–	3,631,868
PICC Financing Plan (3rd)	–	930,859	–	–	44,911	44,911	–	–	–	930,859
PICC Financing Plan (4th)	–	3,002,683	–	–	140,300	140,300	–	–	–	3,002,683
2022 medium-term notes (5th)	20,000,000	2,026,098	–	–	58,671	58,600	–	–	20,000,000	2,026,169
2022 medium-term notes (8th)	5,000,000	504,595	–	–	13,913	13,900	–	–	5,000,000	504,608
Huaneng Trust (1st)	–	2,525,113	–	–	72,949	72,949	–	–	–	2,525,113
Huaneng Trust (2nd)	–	3,076,848	–	–	93,586	93,586	–	–	–	3,076,848
2022 medium-term notes (9th)	20,000,000	2,012,001	–	–	55,633	55,600	–	–	20,000,000	2,012,034
2022 medium-term notes (10th)	20,000,000	2,010,257	–	–	54,428	54,400	–	–	20,000,000	2,010,285
2022 medium-term notes (11th)	25,000,000	2,510,720	–	–	66,529	66,500	–	–	25,000,000	2,510,749
Huaneng Trust (3rd)	–	4,023,857	–	–	124,741	124,741	–	–	–	4,023,857
Huaneng Trust (4th)	–	4,028,629	–	–	124,741	124,741	–	–	–	4,028,629
2023 medium-term notes (1st Energy Supply Bond)	30,000,000	3,112,732	–	–	117,914	117,900	–	–	30,000,000	3,112,746

(Amounts expressed in thousands of RMB)

21 OTHER EQUITY INSTRUMENTS (CONTINUED)

(c) Changes of other equity instruments during 2024 (Continued)

	As at 1 January 2024		Issuance		Cumulative distributions				As at 31 December 2024	
Type of Instruments	Number	Amount	Number	Amount	Accrued distribution	Distribution payment	Redemption value	Other reduction	Number	Amount
2023 medium-term notes (2nd Energy Supply Bond)	30,000,000	3,100,212	–	–	112,232	112,200	–	–	**30,000,000**	**3,100,244**
2023 medium-term notes (3rd Energy Supply Bond)	30,000,000	3,092,786	–	–	106,538	106,500	–	–	**30,000,000**	**3,092,824**
2023 medium-term notes (4th Energy Supply Bond)	25,000,000	2,576,504	–	–	89,536	89,500	–	–	**25,000,000**	**2,576,540**
2023 medium-term notes (5th Energy Supply Bond)	30,000,000	3,089,954	–	–	108,547	108,300	–	–	**30,000,000**	**3,090,201**
2023 medium-term notes (6th)	20,000,000	2,055,410	–	–	67,752	67,600	–	–	**20,000,000**	**2,055,562**
2023 medium-term notes (7th Energy Supply Bond)	25,000,000	2,571,613	–	–	88,446	88,250	–	–	**25,000,000**	**2,571,809**
2023 medium-term notes (8th)	20,000,000	2,046,773	–	–	64,728	64,600	–	–	**20,000,000**	**2,046,901**
2023 medium-term notes (9th)	20,000,000	2,045,957	–	–	64,326	64,200	–	–	**20,000,000**	**2,046,083**
2023 medium-term notes (10th)	15,000,000	1,532,816	–	–	47,189	47,100	–	–	**15,000,000**	**1,532,905**
2023 medium-term notes (11th)	20,000,000	2,033,805	–	–	59,293	59,200	–	–	**20,000,000**	**2,033,898**
2023 medium-term notes (12th)	15,000,000	1,524,652	–	–	43,868	43,800	–	–	**15,000,000**	**1,524,720**
2023 medium-term notes (13th)	20,000,000	2,019,986	–	–	55,055	55,000	–	–	**20,000,000**	**2,020,041**
2023 medium-term notes (14th)	20,000,000	2,019,167	–	–	61,052	61,000	–	–	**20,000,000**	**2,019,219**
2023 medium-term notes (15th)	20,000,000	2,017,167	–	–	61,647	61,600	–	–	**20,000,000**	**2,017,214**
Huaneng Trust (5th)	–	–	–	2,051,000	2,562	–	–	–	**–**	**2,053,562**
Total	455,000,000	79,626,169	–	2,051,000	2,924,430	2,930,903	1,500,000	–	**440,000,000**	**80,170,696**

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22 SURPLUS RESERVES

	As at 1 January 2024 and 31 December 2024
Surplus reserves	8,140,030

According to the Company Law of the PRC, the Company's articles of association and board resolutions, the Company appropriates 10% of each year's net profit under PRC GAAP to the statutory surplus reserve. The Company has the option to cease making provision for such reserve when it reaches 50% of the registered share capital. Upon the approval from the relevant authorities, this reserve can be used to make up any losses incurred or to increase share capital. Except for offsetting against losses, this reserve cannot fall below 25% of the registered share after being used to increase share capital.

As the statutory surplus reserve exceeds 50% of the registered share capital in 2024, the Company made no provision for the current year.

Appropriation of discretionary surplus reserve is proposed by the Board of Directors and approved by the general meeting of shareholders. This reserve can be used to make up any losses incurred in prior years or to increase the share capital after obtaining relevant approvals. For the years ended 31 December 2024 and 2023, no provision was made to the discretionary surplus reserve.

According to the articles of association, in distributing the Company's profits after tax for the relevant accounting year, the lower of the amounts determined in accordance with PRC GAAP and IFRS accounting standards shall be adopted. As at 31 December 2024, in accordance with PRC GAAP and IFRS accounting standards, the balances of retained earnings for the Group amounted to approximately RMB16.609 billion and RMB15.761 billion, respectively; and the balances of retained earnings for the Company amounted to RMB24.281 billion and RMB17.721 billion, respectively.

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23 DIVIDENDS OF ORDINARY SHARES AND CUMULATIVE DISTRIBUTION OF OTHER EQUITY INSTRUMENTS

(a) Dividends of ordinary shares

On 25 June 2024, upon the approval from shareholders at the annual general meeting, the Company declared a cash dividend of RMB0.20 (inclusive of tax) for each ordinary share amounting to RMB3,140 million for the year of 2023 (2022: nil).

On 25 March 2025, the Board of Directors proposed a cash dividend of RMB0.27 (inclusive of tax) for each ordinary share amounting to RMB4,238 million for the year of 2024. This proposal is subject to the approval of the shareholders at the annual general meeting.

(b) Cumulative distribution of other equity instruments

The other equity instruments were recorded as equity in the consolidated financial statements. For the year ended 31 December 2024, the net profit attributable to holders of other equity instruments, based on the applicable interest rates, was RMB2,924 million, and the cumulative distribution paid in 2024 was RMB2,931 million.

24 LONG-TERM LOANS

Long-term loans comprised the following:

	As at 31 December	
	2024	2023
Loans from related parties (a)	**11,871,155**	15,052,662
Bank loans and other loans (b)	**171,907,325**	168,371,759
	183,778,480	183,424,421
Less: Current portion of long-term loans	**31,950,932**	21,076,582
Total	**151,827,548**	162,347,839

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24 LONG-TERM LOANS (CONTINUED)

(a) Loans from related parties

Details of loans from related parties are as follows:

	As at 31 December 2024				
	Original currency '000	RMB equivalent	Less: Current portion	Non-current portion	Annual interest rate
Loans from Huaneng Group					
Unsecured					
RMB					
– Variable rate	824,558	824,558	1,045	823,513	3.60%-3.95%
Loans from Huaneng Finance					
Unsecured					
RMB					
– Variable rate	7,981,184	7,981,184	610,964	7,370,220	2.00%-4.40%
– Fixed rate	1,133,214	1,133,214	110,715	1,022,499	2.10%-3.86%
Loans from Tiancheng Financial Leasing					
Secured					
RMB					
– Variable rate	1,405,516	1,405,516	614,012	791,504	2.76%-3.14%
– Fixed rate	145,572	145,572	474	145,098	2.50%
Loans from Huaneng Group Hong Kong Asset Management Co., Ltd. ("Hong Kong Asset Management")					
Unsecured					
US$					
– Variable rate	28,509	202,412	238	202,174	3.85%
Loans from joint ventures					
Unsecured					
RMB					
– Variable rate	178,699	178,699	12,543	166,156	6.33%
Total		11,871,155	1,349,991	10,521,164	

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24 LONG-TERM LOANS (CONTINUED)

(a) Loans from related parties (Continued)

Details of loans from related parties are as follows: (Continued)

	As at 31 December 2023				
	Original currency '000	RMB equivalent	Less: Current portion	Non-current portion	Annual interest rate
Loans from Huaneng Group					
Unsecured					
RMB					
– Variable rate	912,510	912,510	1,197	911,313	4.30%
– Fixed rate	67,079	67,079	67,079	–	3.86%
Loans from Huaneng Finance					
Unsecured					
RMB					
– Variable rate	9,318,246	9,318,246	521,226	8,797,020	2.05%-4.40%
– Fixed rate	1,569,577	1,569,577	72,327	1,497,250	2.25%-3.86%
Loans from Tiancheng Financial Leasing					
Secured					
RMB					
– Variable rate	1,495,078	1,495,078	14,550	1,480,528	2.73%-4.17%
– Fixed rate	356,065	356,065	143,585	212,480	3.16%-4.65%
Loans from Hong Kong Asset Management					
Unsecured					
US$					
– Variable rate	187,902	1,334,107	1,674	1,332,433	3.85%-7.59%
Total		15,052,662	821,638	14,231,024	

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24 LONG-TERM LOANS (CONTINUED)

(b) Bank loans and other loans

Details of bank loans and other loans are as follows:

	As at 31 December 2024				
	Original currency '000	RMB equivalent	Less: Current portion	Non-current portion	Annual interest rate
Secured					
RMB					
– Fixed rate	294,309	294,309	124,773	169,536	2.50%-4.66%
– Variable rate	8,365,992	8,365,992	522,436	7,843,556	1.90%-4.55%
S$					
– Variable rate	123,272	655,981	248	655,733	4.46%
Unsecured					
RMB					
– Fixed rate	7,376,462	7,376,462	3,331,586	4,044,876	1.82%-3.86%
– Variable rate	147,314,571	147,314,571	23,402,943	123,911,628	1.00%-6.33%
US$					
– Fixed rate	303,608	2,182,459	2,171,930	10,529	3.50%
– Variable rate	783,653	5,633,211	1,041,741	4,591,470	3.85%-9.35%
JPY					
– Fixed rate	1,820,399	84,340	5,284	79,056	0.75%
Total		171,907,325	30,600,941	141,306,384	

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24 LONG-TERM LOANS (CONTINUED)

(b) Bank loans and other loans (Continued)

Details of bank loans and other loans are as follows: (Continued)

	As at 31 December 2023				
	Original currency '000	RMB equivalent	Less: Current portion	Non-current portion	Annual interest rate
Secured					
RMB					
– Fixed rate	226,768	226,768	39,268	187,500	4.66%
– Variable rate	6,137,894	6,137,894	889,141	5,248,753	2.50%-4.95%
S$					
– Variable rate	125,933	677,168	141,589	535,579	4.40%
Unsecured					
RMB					
– Fixed rate	6,894,169	6,894,169	873,391	6,020,778	1.75%-4.75%
– Variable rate	145,036,554	145,036,554	14,748,970	130,287,584	1.00%-4.95%
US$					
– Fixed rate	302,443	2,147,348	2,147,348	–	3.50%
– Variable rate	884,014	6,276,501	993,741	5,282,760	4.63%
S$					
– Variable rate	162,991	876,434	413,976	462,458	4.40%-4.70%
€					
– Fixed rate	227	1,784	1,784	–	2.00%-2.15%
JPY					
– Fixed rate	1,934,532	97,139	5,736	91,403	0.75%
Total		168,371,759	20,254,944	148,116,815	

(c) Other disclosures in relation to the Group's long-term loans

As at 31 December 2024, long-term loans of approximately RMB5,060 million were secured by future revenue from the electricity or heat business (31 December 2023: RMB4,218 million).

As at 31 December 2024, long-term loans of RMB3,051 million (31 December 2023: RMB4,675 million) were secured by certain property, plant and equipment with a net book value amounting to approximately RMB4,875 million (31 December 2023: RMB6,543 million).

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24 LONG-TERM LOANS (CONTINUED)

(c) Other disclosures in relation to the Group's long-term loans (Continued)

As at 31 December 2024, long-term loans of approximately RMB2,756 million (31 December 2023: Nil) were secured by certain construction in progress with a net book value amounting to approximately RMB2,436 million (31 December 2023: Nil). Included in these secured loans, approximately RMB1,444 million (31 December 2023: Nil) were additionally secured by both the future revenue from electricity and equity interests of the corresponding subsidiaries as collateral, while approximately RMB1,312 million were secured solely by the future revenue from electricity as collateral (31 December 2023: Nil).

Certain subsidiaries of the Group had sales and leaseback agreements with Tiancheng Financial Leasing and other financial leasing companies. According to the agreements, these subsidiaries have an option to buy back the equipment at a nominal price (RMB1) when the lease term expires. At the same time, certain subsidiaries of the Group have entered into financial lease agreements with the above-mentioned financial leasing companies, whereby the financial leasing companies will select equipment suppliers to purchase the equipment and lease it to the subsidiaries of the Group in the form of leases according to the requirements of the subsidiaries of the Group, and the subsidiaries of the Group has controlled over the leased equipment. The substance of the transaction was to obtain financing secured by the relevant assets within the leasing period. As at 31 December 2024, the equipment mentioned above had total carrying amounts of RMB2,271 million and RMB5,040 million (31 December 2023: RMB1,924 million and RMB4,619 million) respectively, which were recognised in property, plant and equipment (including construction in progress).

As at 31 December 2024, the Company provided guarantees for long-term loans of approximately RMB1,273 million of the Company's domestic subsidiaries (31 December 2023: RMB917 million).

As at 31 December 2024, long-term loans of approximately RMB84 million (31 December 2023: RMB97 million) were guaranteed by Enshi Finance Bureau of Hubei Province.

As at 31 December 2024, long-term loans of approximately RMB78 million (31 December 2023: approximately RMB92 million) were guaranteed by Tangyin County Modern Agricultural Investment Co., Ltd.

As at 31 December 2024, long-term loans of approximately RMB202 million (approximately US$28 million) (31 December 2023: RMB199 million (approximately US$28 million)) were guaranteed by Shandong Power.

As at 31 December 2024, long-term loans of approximately RMB5,635 million (31 December 2023: RMB6,277 million) were guaranteed by Shandong Power, China Export & Credit Insurance Corporation and Jining Chengtou Holding Group Co., Ltd. ("Jining Chengtou") at the liability ratios of 17.5%, 65.0% and 17.5% respectively (31 December 2023: Shandong Power, China Export & Credit Insurance Corporation and Jining Chengtou at the liability ratios of 17.5%, 65.0% and 17.5% respectively).

As at 31 December 2024, long-term loans of approximately RMB711 million (31 December 2023: RMB1,135 million) were guaranteed by Shandong Power and Jining Chengtou at the liability ratios of 50.0% and 50.0% respectively (31 December 2023: Shandong Power and Jining Chengtou at the liability ratios of 50.0% and 50.0% respectively).

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24 LONG-TERM LOANS (CONTINUED)

(c) Other disclosures in relation to the Group's long-term loans (Continued)

The maturity of long-term loans is as follows:

	Loans from			
	Related Parties As at 31 December		Bank loans and other loans As at 31 December	
	2024	2023	**2024**	2023
Within 1 year	**1,349,991**	821,638	**30,600,941**	20,254,944
After 1 year but within 2 years	**3,160,706**	906,962	**25,722,476**	35,329,423
After 2 years but within 5 years	**4,114,698**	9,050,196	**40,911,693**	47,874,694
After 5 years	**3,245,760**	4,273,866	**74,672,215**	64,912,698
	11,871,155	15,052,662	**171,907,325**	168,371,759
Less: amount due within 1 year included in current liabilities	**1,349,991**	821,638	**30,600,941**	20,254,944
Total	**10,521,164**	14,231,024	**141,306,384**	148,116,815

The maturity profile of the Group's long-term loans as at the end of the reporting period, based on the contractual undiscounted payments, is as follows:

	As at 31 December	
	2024	2023
Within 1 year	**36,753,096**	27,109,219
After 1 year but within 2 years	**32,801,689**	40,869,206
After 2 years but within 5 years	**53,376,984**	65,513,551
After 5 years	**93,247,627**	87,372,790
Total	**216,179,396**	220,864,766

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25 LONG-TERM BONDS

Outstanding corporate bonds, medium-term notes and debt financing instruments (including long-term bonds due within one year) of the Group as at 31 December 2024 are summarised as follows:

Type of Instruments	Face Value	Issuance Date	Initial Period	Initial Distribution Rate	Effective Rate	Issue Price	Balance as at 31 December 2023	Issued Amount	Interest	Amortisation	Repayment	Foreign Exchange Gain	Foreign Currency Translation Differences	Interest Payable	Balance as at 31 December 2024
2016 1st corporate bonds (10 years)	1,200,000	June 2016	10 years	3.98%	3.98%	1,200,000	1,226,393	-	47,832	11	47,760	-	-	26,432	1,226,476
2018 2nd corporate bonds (10 years)	5,000,000	September 2018	10 years	5.05%	5.05%	5,000,000	5,078,071	-	252,714	30	252,500	-	-	78,171	5,078,315
2019 1st corporate bonds (10 years)	2,300,000	April 2019	10 years	4.70%	4.70%	2,300,000	2,374,770	-	108,305	14	108,100	-	-	74,930	2,374,989
2019 1st medium-term notes (5 years)	1,500,000	July 2019	5 years	3.85%	3.96%	1,500,000	1,525,395	-	31,557	798	1,557,750	-	-	-	-
2020 SinoSing oversea bonds (5 years)	2,108,865	February 2020	5 years	2.25%	2.32%	2,108,865	2,141,288	-	48,618	2,540	48,301	67,746	(22,447)	17,942	2,189,444
2020 SinoSing oversea bonds (10 years)	2,108,865	February 2020	10 years	2.63%	2.72%	2,108,865	2,133,796	-	56,721	2,017	56,351	67,746	(22,368)	20,931	2,181,561
2021 1st green medium-term notes (3 years)	1,000,000	February 2021	3 years	3.45%	3.66%	1,000,000	1,034,386	-	3,686	(3,572)	1,034,500	-	-	-	-
2021 2nd green medium-term notes (3 years)	2,500,000	April 2021	3 years	3.35%	3.40%	2,500,000	2,560,568	-	24,255	(1,073)	2,583,750	-	-	-	-
2021 1st corporate bonds (3 years)	500,000	May 2021	3 years	3.35%	3.35%	500,000	510,209	-	6,563	(22)	516,750	-	-	-	-
2021 1st corporate bonds (10 years)	1,500,000	May 2021	10 years	3.97%	3.97%	1,500,000	1,536,230	-	59,550	9	59,550	-	-	36,219	1,536,239
2021 2nd corporate bonds (3 years)	500,000	June 2021	3 years	3.33%	3.33%	500,000	509,509	-	7,162	(21)	516,650	-	-	-	-
2021 2nd corporate bonds (10 years)	3,500,000	June 2021	10 years	3.97%	3.97%	3,500,000	3,579,205	-	138,950	21	138,950	-	-	79,182	3,579,226
2021 3rd corporate bonds (10 years)	1,800,000	June 2021	10 years	3.99%	3.99%	1,800,000	1,838,184	-	71,820	11	71,820	-	-	38,173	1,838,195
2021 1st medium-term notes (3 years)	2,000,000	August 2021	3 years	2.99%	3.01%	2,000,000	2,022,076	-	37,579	145	2,059,800	-	-	-	-
2021 2nd medium-term notes (3 years)	2,000,000	November 2021	3 years	3.07%	3.07%	2,000,000	2,006,221	-	55,193	(14)	2,061,400	-	-	-	-
2021 1st medium-term bonds (JiangSu 3 years)	300,000	December 2021	3 years	2.95%	2.95%	300,000	300,121	-	8,729	-	308,850	-	-	-	-
2022 1st medium-term bonds (10 years)	1,500,000	February 2022	10 years	3.74%	3.80%	1,500,000	1,548,889	-	56,123	(6,358)	56,100	-	-	47,670	1,542,554
2022 2nd medium-term bonds (3 years)	3,000,000	March 2022	3 years	2.84%	2.89%	3,000,000	3,068,840	-	85,393	1,491	85,200	-	-	70,727	3,070,524
2022 3rd medium-term bonds (10 years)	1,500,000	April 2022	10 years	3.70%	3.76%	1,500,000	1,539,649	-	55,606	(6,359)	55,500	-	-	38,622	1,533,396
2022 1st medium-term notes (JiangSu 3 years)	500,000	April 2022	3 years	2.92%	2.92%	500,000	510,000	-	14,600	-	14,600	-	-	10,000	510,000
2022 4th medium-term notes (2 years)	300,000	June 2022	2 years	2.37%	2.40%	300,000	303,834	-	3,380	(104)	307,110	-	-	-	-
2022 6th medium-term notes (3 years)	2,000,000	August 2022	3 years	2.40%	2.51%	2,000,000	2,016,484	-	48,054	1,926	48,000	-	-	19,595	2,018,464
2022 7th medium-term notes (2 years)	500,000	August 2022	2 years	2.14%	2.17%	500,000	504,100	-	6,753	(153)	510,700	-	-	-	-
2024 1st medium-term notes (10 years)	1,000,000	January 2024	10 years	2.91%	2.97%	1,000,000	-	1,000,000	27,431	397	-	-	-	27,430	1,027,828
2024 1st green medium-term notes (3 years)	2,500,000	April 2024	3 years	2.20%	2.21%	2,500,000	-	2,500,000	39,781	99	-	-	-	39,781	2,539,880
2024 2nd medium-term notes (20 years)	1,000,000	May 2024	20 years	2.74%	2.77%	1,000,000	-	1,000,000	17,716	(1,620)	-	-	-	17,716	1,016,096
2024 3th medium-term notes (10 years)	2,000,000	May 2024	10 years	2.68%	2.69%	2,000,000	-	2,000,000	33,776	30	-	-	-	33,775	2,033,806
2024 4th medium-term notes (15 years)	2,000,000	July 2024	15 years	2.50%	2.51%	2,000,000	-	2,000,000	24,657	2	-	-	-	24,658	2,024,659
2024 5th medium-term notes (15 years)	2,000,000	July 2024	15 years	2.54%	2.55%	2,000,000	-	2,000,000	24,078	12	-	-	-	24,078	2,024,090
2024 6th medium-term notes (15 years)	2,000,000	July 2024	15 years	2.44%	2.45%	2,000,000	-	2,000,000	21,258	(9)	-	-	-	21,258	2,021,249
2024 7th medium-term notes (10 years)	1,500,000	August 2024	10 years	2.26%	2.27%	1,500,000	-	1,500,000	13,560	57	-	-	-	13,560	1,513,617
2024 8th medium-term notes (10 years)	1,300,000	August 2024	10 years	2.36%	2.37%	1,300,000	-	1,300,000	11,683	47	-	-	-	11,684	1,311,730
2024 9th medium-term notes (3 years)	1,500,000	November 2024	3 years	2.09%	2.10%	1,500,000	-	1,500,000	3,608	(68)	-	-	-	3,607	1,503,540
Total						55,917,730	39,868,218	16,800,000	1,446,691	(9,716)	12,499,992	135,492	(44,815)	776,141	45,695,878

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25 LONG-TERM BONDS(CONTINUED)

As at 31 December 2024, the Company provided guarantees for long-term bonds of approximately RMB4,313 million (31 December 2023: RMB4,250 million) of the Company's overseas subsidiary.

The maturity profile of the Group's long-term bonds as at the end of the reporting period, based on the contractual undiscounted payments, is as follows:

	As at 31 December	
	2024	2023
Within 1 year	**9,797,896**	13,239,426
After 1 year but within 2 years	**2,375,746**	6,645,322
After 2 years but within 5 years	**14,324,627**	10,723,061
After 5 years	**28,369,300**	15,701,706
Total	**54,867,569**	46,309,515

26 OTHER NON-CURRENT LIABILITIES

	As at 31 December	
	2024	2023
Government grants		
– Environmental subsidies (a)	**825,583**	960,020
– Other government grants (b)	**523,812**	850,586
Contract liabilities	**3,451,475**	2,806,335
Repurchase obligation (c)	**870,800**	1,305,367
Other deferred income	**50,521**	19,163
Others (d)	**833,552**	953,363
Subtotal	**6,555,743**	6,894,834
Current portion of other non-current liabilities	**(83,061)**	(81,246)
Total	**6,472,682**	6,813,588

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26 OTHER NON-CURRENT LIABILITIES (CONTINUED)

(a) This primarily represented subsidies for the construction of desulphurisation equipment and other environmental protection projects.

(b) In 2024, the decrease in other government grants was mainly due to the refund of demolition and relocation compensation of Jining Power Plant of RMB403 million, please refer to Note 27 for details.

(c) As at 31 December 2024, repurchase obligation to Hong Kong Asset Management amounted to RMB871 million (31 December 2023: RMB1,305 million).

(d) As at 31 December 2024, included in others, there were financial liabilities amounting to RMB721 million (31 December 2023: RMB832 million), which were comprised of mining right payables, guarantee deposits, poverty relief payables, etc.

The maturity profile of the Group's other non-current financial liabilities as at the end of the reporting period, based on the contractual undiscounted payments, is as follows:

	As at 31 December	
	2024	2023
Within 1 year	**15,482**	82,738
After 1 year but within 2 years	**170,342**	142,882
After 2 years but within 5 years	**129,777**	156,011
After 5 years	**431,345**	525,130
Total	**746,946**	906,761

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27 ACCOUNTS PAYABLE AND OTHER LIABILITIES

Accounts payable and other liabilities comprised of:

	As at 31 December	
	2024	2023
Accounts and notes payables	**19,174,888**	22,562,908
Payables to contractors for construction	**31,222,084**	28,239,563
Retention payables to contractors	**2,020,874**	2,015,050
Consideration payables for acquiring a subsidiary	**–**	22,842
Refund of government subsidies*	**1,500,000**	–
Others	**8,115,636**	7,010,781
Total	**62,033,482**	59,851,144

* As at 31 December 2024, the amount payable for the refund of government subsidies was RMB1.5 billion, which represented the demolition and relocation compensation for Jining Power Plant and should be paid by a subsidiary of the Company, Huaneng Shandong Power Generation Co., Ltd. ("Shandong Power") to Jining Municipal Government. In 2021, Shandong Power received the demolition and relocation compensation of RMB1.5 billion for Jining Power Plant, which was recorded as other non-current liabilities and amortised into other income in subsequent years. In 2024, Jining Municipal Government sent a letter of notice to Shandong Power about the proposed termination of the former agreement with Shandong Power with regards to the demolition and relocation of Jining Power Plant as it believed that the demolition and relocation of Jining Power Plant could not be achieved due to various reasons. Meanwhile, Jining Municipal Government also requested Shandong Power to return the previously received compensation of demolition and relocation of RMB1.5 billion. After friendly negotiations with Jining Municipal Government, the Company will refund the demolition and relocation compensation of RMB1.5 billion, of which RMB0.403 billion was offset against the balance of other non-current liabilities and RMB1.097 billion was offset against other income.

Please refer to Note 36(a)(iv) for details of accounts payable and other liabilities due to the related parties.

As at 31 December 2024 and 31 December 2023, the accounts and notes payables and other liabilities were non-interest-bearing.

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27 ACCOUNTS PAYABLE AND OTHER LIABILITIES (CONTINUED)

The carrying amounts of accounts payable and other liabilities are denominated in the following currencies:

	As at 31 December	
	2024	2023
RMB	**58,530,352**	55,767,881
S$ (RMB equivalent)	**1,642,594**	1,327,085
US$ (RMB equivalent)	**923,792**	1,959,873
JPY (RMB equivalent)	**50,066**	109,147
PKR (RMB equivalent)	**886,298**	687,144
HKD (RMB equivalent)	**252**	–
EUR (RMB equivalent)	**114**	–
GBP (RMB equivalent)	**14**	14
Total	**62,033,482**	59,851,144

The ageing analysis of accounts and notes payable, based on the invoice date, was as follows:

	As at 31 December	
	2024	2023
Within 1 year	**18,710,816**	20,595,605
Between 1 to 2 years	**135,151**	1,630,731
Over 2 years	**328,921**	336,572
Total	**19,174,888**	22,562,908

28 TAXES PAYABLE

Taxes payable comprise:

	As at 31 December	
	2024	2023
VAT payable	**531,250**	755,038
Income tax payable	**872,057**	940,307
Others	**831,976**	667,683
Total	**2,235,283**	2,363,028

(Amounts expressed in thousands of RMB)

29 SHORT-TERM BONDS

Outstanding short-term bonds as at 31 December 2024 are summarised as follows:

Type of Instruments	Face Value	Issuance Date	Maturity	Issue Price	Coupon Rate	Balance as at 31 December 2023	Issued Amount	Interest	Amortisation	Repayment	Balance as at 31 December 2024
Super short-term bond (JiangSu 2023 5th)	600,000	November 2023	49 days	600,000	2.25%	601,439	–	9,752	–	(611,191)	–
Super short-term bond (2023 19th)	3,000,000	December 2023	34 days	3,000,000	2.33%	3,004,794	–	1,719	(20)	(3,006,493)	–
Super short-term bond (2023 20th)	2,500,000	December 2023	35 days	2,500,000	2.33%	2,503,995	–	1,591	(16)	(2,505,570)	–
Super short-term bond (JiangSu 2024 1st)	800,000	February 2024	45 days	800,000	1.99%	–	800,000	1,957	–	(801,957)	–
Super short-term bond (JiangSu 2024 2nd)	400,000	March 2024	52 days	400,000	2.06%	–	400,000	1,174	–	(401,174)	–
Super short-term bond (2024 1st)	1,000,000	March 2024	36 days	1,000,000	1.84%	–	1,000,000	1,815	–	(1,001,815)	–
Super short-term bond (JiangSu 2024 3rd)	600,000	April 2024	37 days	600,000	1.90%	–	600,000	1,156	–	(601,156)	–
Super short-term bond (2024 2nd)	2,000,000	April 2024	34 days	2,000,000	1.79%	–	2,000,000	3,335	–	(2,003,335)	–
Super short-term bond (JiangSu 2024 4th)	1,000,000	May 2024	35 days	1,000,000	1.69%	–	1,000,000	1,621	–	(1,001,621)	–
Super short-term bond (2024 3rd)	4,000,000	May 2024	63 days	4,000,000	1.71%	–	4,000,000	11,806	–	(4,011,806)	–
Super short-term bond (2024 4th)	3,000,000	May 2024	61 days	3,000,000	1.67%	–	3,000,000	8,373	–	(3,008,373)	–
Super short-term bond (JiangSu 2024 5th)	1,000,000	June 2024	30 days	1,000,000	1.75%	–	1,000,000	1,438	–	(1,001,438)	–
Super short-term bond (2024 5th)	2,000,000	June 2024	58 days	2,000,000	1.73%	–	2,000,000	5,498	–	(2,005,498)	–
Super short-term bond (JiangSu 2024 6th)	1,000,000	July 2024	43 days	1,000,000	1.73%	–	1,000,000	2,038	–	(1,002,038)	–
Super short-term bond (2024 6th)	5,000,000	July 2024	31 days	5,000,000	1.60%	–	5,000,000	6,795	–	(5,006,795)	–
Super short-term bond (2024 7th)	4,500,000	July 2024	32 days	4,500,000	1.62%	–	4,500,000	6,391	–	(4,506,391)	–
Super short-term bond (2024 8th)	5,000,000	August 2024	85 days	5,000,000	1.83%	–	5,000,000	21,308	–	(5,021,308)	–
Super short-term bond (2024 9th)	4,500,000	August 2024	92 days	4,500,000	1.95%	–	4,500,000	22,118	–	(4,522,118)	–
Super short-term bond (2024 10th)	1,000,000	August 2024	90 days	1,000,000	1.93%	–	1,000,000	4,759	–	(1,004,759)	–
Super short-term bond (2024 11th)	4,000,000	November 2024	109 days	4,000,000	1.94%	–	4,000,000	10,843	78	–	4,010,921
Super short-term bond (2024 12th)	2,000,000	November 2024	91 days	2,000,000	1.92%	–	2,000,000	3,682	5	–	2,003,687
Super short-term bond (2024 13th)	2,000,000	December 2024	77 days	2,000,000	1.77%	–	2,000,000	2,522	(20)	–	2,002,502
Total				50,900,000		6,110,228	44,800,000	131,691	27	(43,024,836)	8,017,110

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30 SHORT-TERM LOANS

Short-term loans are as follows:

	As at 31 December 2024			As at 31 December 2023		
	Original currency '000	RMB equivalent	Annual interest rate	Original currency '000	RMB equivalent	Annual interest rate
Secured						
RMB						
– Fixed rate	144,499	144,499	0.62%-4.00%	646,380	646,380	1.06%-3.00%
– Variable rate	283,780	283,780	2.30%-2.80%	–	–	–
Unsecured						
RMB						
– Fixed rate	11,561,370	11,561,370	1.40%-3.15%	13,628,864	13,628,864	1.75%-3.55%
– Variable rate	49,176,259	49,176,259	1.70%-3.10%	42,957,485	42,957,485	1.60%-3.20%
Total		61,165,908			57,232,729	

As at 31 December 2024, short-term loans of RMB47 million were pledged loans formed by factoring accounts receivable (31 December 2023: Nil). As at 31 December 2024, short-term loans of RMB47 million (31 December 2023: RMB423 million) represented the notes receivable that were discounted with recourse. As these notes receivable had not yet matured, the proceeds received were recorded as short-term loans. As at 31 December 2024, short-term loans of approximately RMB32 million were secured by future revenue right from the electricity business (31 December 2023: Nil).

As at 31 December 2024, short-term loans of RMB302 million (31 December 2023: RMB223 million) were secured by certain equipment with a net book value amounting to approximately RMB427 million (31 December 2023: RMB474 million).

As at 31 December 2024, short-term loans borrowed from Huaneng Finance amounted to RMB9,354 million (31 December 2023: RMB10,376 million) with annual interest rates ranging from 1.90% to 2.65% (31 December 2023: from 2.05% to 3.20%). As at 31 December 2024, short-term loans borrowed from Tiancheng Financial Leasing amounted to RMB278 million (31 December 2023: Nil) with annual interest rates ranging from 2.60% to 2.80% (31 December 2023: Nil). As at 31 December 2024, short-term loans borrowed from Huaneng Group amounted to RMB5 million (31 December 2023: RMB1,601 million) with annual interest rates of 2.78% (31 December 2023: 2.10% to 3.55%). As at 31 December 2024, short-term loans borrowed from Huaneng Yuncheng Commercial Factoring (Tianjin) Co., Ltd. amounted to RMB73 million (31 December 2023: Nil) with annual interest rates ranging from 3.80% to 4.00% (31 December 2023: Nil).

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31 DEFERRED INCOME TAX ASSETS AND LIABILITIES

The deferred income tax assets and liabilities are as follows:

	As at 31 December	
	2024	2023
Deferred income tax assets before offsetting	**5,358,471**	6,288,746
Offset amount	**(2,203,371)**	(2,138,642)
Deferred income tax assets after offsetting	**3,155,100**	4,150,104
Deferred income tax liabilities before offsetting	**(5,213,386)**	(4,731,785)
Offset amount	**2,203,371**	2,138,642
Deferred income tax liabilities after offsetting	**(3,010,015)**	(2,593,143)
	145,085	1,556,961

The gross movements in the deferred income tax accounts are as follows:

	For the year ended 31 December	
	2024	2023
Beginning of the year	**1,556,961**	3,462,868
Business combination	**662**	–
Disposal of other equity instrument investments	**–**	1,438
Charged to profit or loss (Note 33)	**(1,392,388)**	(1,859,676)
Charged to other comprehensive income	**(33,848)**	(7,788)
Currency translation differences	**13,894**	(40,333)
Others	**(196)**	452
End of the year	**145,085**	1,556,961

(Amounts expressed in thousands of RMB)

31 DEFERRED INCOME TAX ASSETS AND LIABILITIES (CONTINUED)

The movements in deferred income tax assets and liabilities during the year, without taking into consideration the offsetting of balances within the same tax jurisdictions, are as follows:

Deferred income tax assets:

	Hedging reserve	Fair value losses	Amortisation of land use rights	Provision for impairment loss	Depreciation	Accrued expenses	VAT refunds on purchases of domestically manufactured equipment	Unused tax losses	Lease liabilities	Others	Total
As at 31 December 2022	109,986	139,000	3,874	603,589	701,704	21,627	42,257	4,757,858	5,673	875,561	7,261,129
Effect of adoption of amendments to IAS 12	–	–	–	–	–	–	–	–	341,641	–	341,641
As at 1 January 2023 (Restated)	109,986	139,000	3,874	603,589	701,704	21,627	42,257	4,757,858	347,314	875,561	7,602,770
(Charged)/credited to profit or loss	–	–	(185)	8,390	37,620	(331)	(15,738)	(1,727,709)	497,564	(131,475)	(1,331,864)
(Charged)/credited to other comprehensive income	(22,203)	15,853	–	–	–	–	–	–	–	–	(6,350)
Currency translation differences	3,644	–	–	860	–	–	–	–	–	743	5,247
Others	–	–	–	–	–	–	–	–	18,943	–	18,943
As at 31 December 2023 and 1 January 2024	91,427	154,853	3,689	612,839	739,324	21,296	26,519	3,030,149	863,821	744,829	6,288,746
Business combination	–	–	–	419	–	–	–	1,329	–	–	1,748
(Charged)/credited to profit or loss	–	–	(185)	(79,868)	(51,773)	(1,581)	(15,663)	(1,240,071)	345,283	123,919	(919,939)
(Charged)/credited to other comprehensive income	(47,099)	13,251	–	–	–	–	–	–	–	–	(33,848)
Currency translation differences	(792)	–	–	(279)	–	–	–	–	–	(258)	(1,329)
Others	–	–	–	–	–	–	–	–	23,093	–	23,093
As at 31 December 2024	43,536	168,104	3,504	533,111	687,551	19,715	10,856	1,791,407	1,232,197	868,490	5,358,471

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31 DEFERRED INCOME TAX ASSETS AND LIABILITIES (CONTINUED)

The movements in deferred income tax assets and liabilities during the year, without taking into consideration the offsetting of balances within the same tax jurisdictions, are as follows: (Continued)

Deferred income tax liabilities:

	Fair value gains	Amortisation of land use rights	Depreciation	Power generation licence	Mining rights	Right-of-use asset	Others	Total
As at 31 December 2022	(4,968)	(700,143)	(2,154,778)	(706,663)	(129,383)	(18,305)	(84,021)	(3,798,261)
Effect of adoption of amendments to IAS 12	–	–	–	–	–	(341,641)	–	(341,641)
As at 1 January 2023 (Restated)	(4,968)	(700,143)	(2,154,778)	(706,663)	(129,383)	(359,946)	(84,021)	(4,139,902)
Disposal of other equity instrument investments	1,438	–	–	–	–	–	–	1,438
Credited/(charged) to profit or loss	–	46,531	(79,595)	–	(32,629)	(484,798)	22,679	(527,812)
(Charged)/credited to other comprehensive income	(1,438)	–	–	–	–	–	–	(1,438)
Currency translation differences	–	–	(19,116)	(26,464)	–	–	–	(45,580)
Others	–	–	–	–	–	(18,491)	–	(18,491)
As at 31 December 2023 and 1 January 2024	(4,968)	(653,612)	(2,253,489)	(733,127)	(162,012)	(863,235)	(61,342)	(4,731,785)
Business combination	–	–	**(1,086)**	–	–	–	–	**(1,086)**
(Charged)/credited to profit or loss	–	**47,382**	**(174,402)**	–	–	**(331,687)**	**(13,742)**	**(472,449)**
Currency translation differences	–	–	**7,615**	**7,608**	–	–	–	**15,223**
Others	–	–	–	–	–	**(23,289)**	–	**(23,289)**
As at 31 December 2024	**(4,968)**	**(606,230)**	**(2,421,362)**	**(725,519)**	**(162,012)**	**(1,218,211)**	**(75,084)**	**(5,213,386)**

As at 31 December 2024 and 2023, taxable temporary differences relating to interests in equity method investees amounted to RMB6.33 billion and RMB5.19 billion, respectively. No deferred tax liabilities were recognised as at 31 December 2024 and 2023 as dividends from investments in associates and joint ventures are exempted from the PRC income tax and the Company has no plan to dispose of any of these investees in the foreseeable future.

As at 31 December 2024 and 2023, taxable temporary differences relating to the interests in foreign subsidiaries amounted to RMB6.55 billion and RMB4.83 billion, respectively. No deferred tax liabilities were recognised in respect of the tax that would be payable on the distribution of these interests as at 31 December 2024 and 2023 as the Company controls the dividend policy of the subsidiaries, and it has been determined that it is probable that the interests will not be distributed in the foreseeable future, and the Company has no plan to dispose of any of these investees in the foreseeable future.

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31 DEFERRED INCOME TAX ASSETS AND LIABILITIES (CONTINUED)

In accordance with the accounting policy set out in Note 2(x), the Group did not recognise deferred income tax assets in respect of certain deductible temporary differences and accumulated tax losses that can be carried forward against future taxable income as follows:

	As at 31 December	
	2024	2023
Deductible temporary differences	**21,789,655**	21,259,792
Unused tax losses	**29,984,836**	29,478,970
Total	**51,774,491**	50,738,762

The expiry dates of the tax losses of the Group for which no deferred income tax assets were recognised are summarised as follows:

	As at 31 December	
	2024	2023
Year of expiry		
2024	**–**	1,906,355
2025	**1,612,918**	1,867,534
2026	**8,696,336**	10,773,761
2027	**11,958,341**	11,169,267
2028	**4,226,961**	3,762,053
2029	**3,490,280**	–
Total	**29,984,836**	29,478,970

32 ADDITIONAL FINANCIAL INFORMATION TO THE CONSOLIDATED STATEMENT OF FINANCIAL POSITION

As at 31 December 2024, the net current liabilities of the Group amounted to approximately RMB82,438 million (31 December 2023: RMB73,255 million). On the same date, total assets less current liabilities were approximately RMB416,839 million (31 December 2023: RMB386,317 million).

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33 INCOME TAX EXPENSE

	For the year ended 31 December	
	2024	2023
Current income tax expense	**2,422,705**	1,848,057
Deferred income tax (Note 31)	**1,392,388**	1,859,676
Total	**3,815,093**	3,707,733

No Hong Kong profits tax has been provided as there were no estimated assessable profits in Hong Kong in 2024 (2023: Nil).

The Company and its PRC branches and subsidiaries are subject to income tax at 25%, except for certain PRC branches and subsidiaries that are tax exempted or taxed at preferential tax rates, as determined in accordance with the relevant PRC income tax rules and regulations for the years ended 31 December 2024 and 2023.

Electricity income in Pakistan is entitled to an income tax exemption according to Income Tax Ordinance 2001, while other income is taxable. The tax liability of subsidiaries in Pakistan would be calculated at the highest of: (i) Normal tax at the rate of 29% of taxable profit (“Normal tax”); (ii) Alternative Corporate Tax (ACT) at the rate of 17% of accounting profit; and (iii) Turnover tax at 1.25% of Revenue (“Turnover tax”). If the income tax calculated is above Normal tax, it would be carried forward to subsequent years (i) 10 years for the portion of ACT exceeding Normal tax; (ii) 3 years for the portion of Turnover tax exceeding Normal tax. A super tax is levied on high earning persons (“taxable income”), with a tax rate of 0% to 10%, applicable on incomes defined in section 4C of Income Tax Ordinance 2001. The tax rate is 10% while income exceeds PKR 500 million.

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33 INCOME TAX EXPENSE (CONTINUED)

The reconciliation of the effective income tax rate from the notional income tax rate is as follows:

	For the year ended 31 December	
	2024	2023
PRC statutory enterprise income tax rate	**25.00%**	25.00%
Effect of different tax rates of certain subsidiaries	**(11.73%)**	(13.65%)
Utilisation of previously unrecognised tax losses and deductible temporary differences	**(3.16%)**	(3.67%)
Unrecognised tax losses for the year	**9.04%**	15.72%
Unrecognised deductible temporary differences	**3.95%**	5.54%
Effect of non-taxable income	**(1.71%)**	0.32%
Effect of non-deductible expenses	**1.12%**	1.79%
Others	**(1.10%)**	(1.33%)
Effective tax rate	**21.41%**	29.72%

For the years ended 31 December 2024 and 31 December 2023, the effective tax rate was proportioned by income tax expense to profit before tax.

Pillar Two income taxes

The Company is within the scope of Pillar Two model rules. The Group has applied the mandatory exception to recognising and disclosing information about deferred tax assets and liabilities arising from Pillar Two income taxes, and will account for the Pillar Two income taxes as current tax when incurred. Pillar Two legislation has been enacted or substantively enacted but not yet in effect as at 31 December 2024 in certain jurisdictions in which the Group operates. The Group has assessed its potential exposure based on the information available regarding the financial performance of the Group in the current year. As such, it may not be entirely representative of future circumstances. Based on the assessment, the Group does not expect a material exposure to Pillar Two income taxes. The Group continues to follow Pillar Two legislative developments and evaluates the potential future impact on its financial statements.

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33 INCOME TAX EXPENSE (CONTINUED)

Pillar Two income taxes (Continued)

Jurisdictional updates are as follows:

Singapore

On 27 November 2024, Singapore published the *Multinational Enterprise (Minimum Tax) Act 2024* ("MMT Act") in its Official Gazette. The MMT Act was passed by the Parliament on 15 October 2024 for which the Presidential Assent was received on 8 November 2024 to become law.

The MMT Act introduces a Domestic Minimum Top-up Tax and an Income Inclusion Rule for fiscal years starting on or after 1 January 2025 for in-scope multinational groups. Subsidiary legislation (e.g., Rules, Regulations) will be released to cover the determination of Global Anti-Base Erosion Income or Loss and Adjusted Covered Taxes, safe harbour rules and transitional rules, etc.

The legislation does not incorporate the Undertaxed Profits Rule at this stage, as its implementation will be evaluated later in light of evolving international developments.

China Hong Kong

On 30 October 2024, the Hong Kong government released the outcome of its public consultation on Pillar Two implementation. According to this communication, Hong Kong will implement the Income Inclusion Rule and the Hong Kong minimum Top-up Tax from 1 January 2025. The Undertaxed Profits Rule will be implemented at a later date based on further studies. This document also outlines other aspects such as an extension in the due date for payment of top-up taxes.

Pakistan

As at 31 December 2024, the government of Pakistan has no indications to enact the Pillar Two legislation.

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34 EARNINGS PER SHARE

The basic earnings per share is calculated by dividing the consolidated net profit attributable to the equity holders of the Company excluding distribution of other equity instruments by the weighted average number of the Company's outstanding ordinary shares during the year:

	For the year ended 31 December	
	2024	2023
Consolidated net profit attributable to equity holders of the Company	**10,184,633**	8,357,460
Less: distribution of other equity instruments	**2,924,430**	2,916,280
Consolidated net profit attributable to ordinary shareholders of the Company	**7,260,203**	5,441,180
Weighted average number of the Company's outstanding ordinary shares ('000) *	**15,698,093**	15,698,093
Basic and diluted earnings per share (RMB)	**0.46**	0.35

* Weighted average number of ordinary shares:

	For the year ended 31 December	
	2024	2023
	'000	'000
Issued ordinary shares at 1 January	**15,698,093**	15,698,093
Weighted average number of ordinary shares at 31 December	**15,698,093**	15,698,093

There was no dilutive effect on earnings per share since the Company had no dilutive potential ordinary shares for the years ended 31 December 2024 and 2023.

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35 NOTES TO THE CONSOLIDATED STATEMENT OF CASH FLOWS

Bank balances and cash comprise the following:

	As at 31 December	
	2024	2023
Total bank balances and cash	**19,932,035**	16,849,858
Less: Restricted cash	**1,330,929**	699,223
Cash and cash equivalents as at year end	**18,601,106**	16,150,635

The bank balances and cash of the Group are denominated in the following currencies:

	As at 31 December	
	2024	2023
RMB	**15,207,826**	13,890,937
S$ (RMB equivalent)	**2,051,840**	842,154
US$ (RMB equivalent)	**400,103**	410,243
PKR (RMB equivalent)	**2,243,139**	1,666,996
Others	**29,127**	39,528
Total	**19,932,035**	16,849,858

During the year, the Group had non-cash additions to right-of-use assets and lease liabilities of RMB4,436 million and RMB4,436 million, respectively, in respect of lease arrangements (2023: RMB4,160 million and RMB4,160 million).

The Group entered into investment agreements with a non-controlling interest of certain subsidiaries, Hong Kong Asset Management, which included repurchase obligations. During the year of 2024, in connection with the recognition and implementation of these repurchase obligations, treated as non-cash transactions, the Group's accounts payable and other liabilities were increased, while other capital reserves were decreased by RMB40 million. Meanwhile, the Group's other non-current liabilities were reduced, and retained earnings were increased by RMB394 million.

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35 NOTES TO THE CONSOLIDATED STATEMENT OF CASH FLOWS (CONTINUED)

The table below details changes in the Group's liabilities from financing activities, including both cash and non-cash changes. Liabilities arising from financing activities are liabilities for which cash flows were, or future cash flows will be, classified in the Group's consolidated statement of cash flows as cash flows from financing activities:

Items	Loans (Notes 24, 30)	Bonds (Notes 25, 29)	Lease liabilities (Note 41)	Dividends payable
As at 1 January 2024	240,657,150	45,978,446	7,994,047	554,684
(a) Business combination	996,819	–	–	–
(b) Changes from financing cash flows:				
Proceeds from new bank loans	136,165,475	–	–	–
Repayment of bank loans	(133,313,925)	–	–	–
Proceeds from new bonds	–	61,600,000	–	–
Repayment of bonds	–	(54,000,000)	–	–
Payment of lease liabilities	–	–	(4,374,884)	–
Interest paid	(6,720,621)	(1,524,829)	–	–
Dividends paid to shareholders of the Company	–	–	–	(3,139,619)
Dividends paid to non-controlling interests of subsidiaries	–	–	–	(1,617,750)
Others	–	(26,199)	–	–
(c) Exchange adjustments	277,712	90,678	9,838	–
(d) Other changes:				
New leases	–	–	4,435,775	–
Interest expenses	5,855,193	1,594,892	296,106	–
Capitalised borrowing costs	827,488	–	44,304	–
2023 dividends declared	–	–	–	4,571,298
Cumulative distribution of other equity instruments attributable to non-controlling interests	–	–	–	59,833
Early termination and reclassification	199,097	–	(304,596)	–
As at 31 December 2024	244,944,388	53,712,988	8,100,590	428,446

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35 NOTES TO THE CONSOLIDATED STATEMENT OF CASH FLOWS (CONTINUED)

The table below details changes in the Group's liabilities from financing activities, including both cash and non-cash changes. Liabilities arising from financing activities are liabilities for which cash flows were, or future cash flows will be, classified in the Group's consolidated statement of cash flows as cash flows from financing activities: (Continued)

Items	Loans (Notes 24, 30)	Bonds (Notes 25, 29)	Lease liabilities (Note 41)	Dividends payable
As at 1 January 2023	254,381,012	46,105,160	6,631,875	617,576
(a) Business combination	–	–	–	–
(b) Changes from financing cash flows:				
Proceeds from new bank loans	155,725,452	–	–	–
Repayment of bank loans	(169,794,926)	–	–	–
Proceeds from new bonds	–	65,000,000	–	–
Repayment of bonds	–	(65,200,000)	–	–
Payment of lease liabilities	–	–	(3,130,008)	–
Interest paid	(7,899,974)	(1,383,835)	–	–
Dividends paid to non-controlling interests of subsidiaries	–	–	–	(798,206)
Others	–	(14,889)	–	–
(c) Exchange adjustments	383,711	74,042	6,889	–
(d) Other changes:				
New leases	–	–	4,159,547	–
Interest expenses	7,244,366	1,397,968	255,306	–
Capitalised borrowing costs	617,509	–	70,438	–
2022 dividends declared	–	–	–	680,385
Cumulative distribution of other equity instruments attributable to non-controlling interests	–	–	–	54,929
As at 31 December 2023	240,657,150	45,978,446	7,994,047	554,684

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35 NOTES TO THE CONSOLIDATED STATEMENT OF CASH FLOWS (CONTINUED)

The total cash outflow for leases included in the consolidated statement of cash flows is as follows:

	For the year ended 31 December	
	2024	2023
Within financing activities*	**4,374,884**	3,130,008
Total	**4,374,884**	3,130,008

* During the year, the principal portion of lease liabilities paid was RMB4,034 million (2023: RMB2,804 million).

36 RELATED PARTY BALANCES AND TRANSACTIONS

The related parties of the Group that had transactions with the Group are as follows:

Names of related parties	Nature of relationship
Huaneng Group	Ultimate parent company
HIPDC	Parent company
Huaneng Group Fuel Company and its subsidiaries	An associate of the Company and also a subsidiary of Huaneng Group
Huaneng Finance	An associate of the Company and also a subsidiary of Huaneng Group
Huaneng Clean Energy Research Institute	An associate of the Company and also a subsidiary of Huaneng Group
Huaneng Changjiang Environmental Protection Technology Co., Ltd.	An associate of the Company and also a subsidiary of Huaneng Group
Hanfeng Power	An associate of the Company and also a subsidiary of Huaneng Group
Huaneng (Tianjin) Coal Gasification Power Generation Co., Ltd.	An associate of the Company and also a subsidiary of Huaneng Group
Huaneng Xiapu Nuclear Power Co., Ltd.	An associate of the Company and also a subsidiary of Huaneng Group
Shidaowan Nuclear Power	An associate of the Company and also a subsidiary of Huaneng Group
Tiancheng Financial Leasing	An associate of the Company and also a subsidiary of Huaneng Group
Shanghai Ruining Shipping Co., Ltd.	An associate of the Company and also a subsidiary of Huaneng Group
Huaneng Supply Chain Platform Technology Co., Ltd.	An associate of the Company and also a subsidiary of Huaneng Group
Shanxi Lu'an Group Zuoquan Wulihou Coal Industry Co., Ltd.	An associate of the Company
Chongqing Luoyu Environmental Protection Technology Co., Ltd.	An associate of the Company
Suzhou Sugao Renewables Service Co. Ltd.	An associate of the Company
Fujian Gulei Energy Technology Co. Ltd.	An associate of the Company
Chongqing Huaneng Stone Powder Co. Ltd.	An associate of the Company
Taiyuan Dongshan Petrochina Kunlun Gas Co., Ltd.	An associate of the Company
Ruian Huaou Offshore wind power co., ltd.	An associate of the Company
Huaneng Shenbei Thermal Power Co., Ltd.	An associate of the Company
Zhengzhou Airport Xinggang Electric Power Co., Ltd.	An associate of the Company
Liaocheng Jinshui Lake Water Supply Co., Ltd.	An associate of the Company
Wuhan Xingang Jiangbei Railway Co., Ltd.	An associate of the Company

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36 RELATED PARTY BALANCES AND TRANSACTIONS (CONTINUED)

The related parties of the Group that had transactions with the Group are as follows: (continued)

Names of related parties	Nature of relationship
Shanghai Time Shipping Co., Ltd.	A joint venture of the Company
Huaneng Yingkou Port Limited Liability Company	A joint venture of the Company
Jiangsu Nantong Power Co., Ltd.	A joint venture of the Company
Yantai Gangneng Bulk Cargo Terminal Co., Ltd.	A joint venture of the Company
Shandong Luyi Power International Limited Company	A joint venture of the Company
Huaneng (Zhangzhou, Fujian) Energy Co., Ltd.	A joint venture of the Company
Jining Huayuan Thermal Power Co., Ltd.	A joint venture of the Company
Jilin Renewable Energy Investment and Development Co., Ltd.	A joint venture of the Company
Huaneng Renewables Corporation Limited and its subsidiaries	Subsidiaries of Huaneng Group
Huaneng Nuclear Power Development Co., Ltd. and its subsidiaries	Subsidiaries of Huaneng Group
Huaneng Energy & Communications Holdings Co., Ltd. and its subsidiaries	Subsidiaries of Huaneng Group
Huaneng Coal Business Sector Co., Ltd. and its subsidiaries	Subsidiaries of Huaneng Group
Huaneng Capital Services and its subsidiaries	Subsidiaries of Huaneng Group
Huaneng Group Technology Innovation Center	A subsidiary of Huaneng Group
Huaneng Real Estate Co., Ltd. and its subsidiaries	Subsidiaries of Huaneng Group
North United Power Corporation and its subsidiaries	Subsidiaries of Huaneng Group
Huaneng Lancangjiang Hydropower Co., Inc. and its subsidiaries	Subsidiaries of Huaneng Group
Huaneng Inner Mongolia Eastern Energy Co., Ltd. and its subsidiaries	Subsidiaries of Huaneng Group
Sichuan Huaneng Hydropower Development Co., Ltd and its subsidiaries	Subsidiaries of Huaneng Group
Huaneng Shanxi Power Generation Limited and its subsidiaries	Subsidiaries of Huaneng Group
Huaneng Ningxia Energy Company Ltd. and its subsidiaries	Subsidiaries of Huaneng Group
Huaneng Gansu Energy Development Company Ltd. and its subsidiaries	Subsidiaries of Huaneng Group
Huaneng Tibet Yarlung Zangbo River Hydropower Development & Investment Company Ltd. and its subsidiaries	Subsidiaries of Huaneng Group
China Hua Neng Group Hong Kong Limited and its subsidiaries	Subsidiaries of Huaneng Group
Xi'an Thermal Power Research Institute Co., Ltd. and its subsidiaries	Subsidiaries of Huaneng Group
Hong Kong Asset Management	Subsidiaries of Huaneng Group
Huaneng Integrated Industry Co., Ltd and its subsidiaries	Subsidiaries of Huaneng Group
Tianjin Huaneng Yangliuqing Thermal Power Industrial Co., Ltd. and its subsidiaries	Subsidiaries of Huaneng Group
Huaneng Gongrong No.1 (Tianjin) Equity Investment Fund Partnership (Limited Partnership) and its subsidiaries	Subsidiaries of Huaneng Group
Huaneng Songyuan Power Co., Ltd.	A subsidiary of Huaneng Group

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36 RELATED PARTY BALANCES AND TRANSACTIONS (CONTINUED)

The related parties of the Group that had transactions with the Group are as follows: (continued)

Names of related parties	Nature of relationship
Huaneng Tendering Co., Ltd.	A subsidiary of Huaneng Group
Huaneng Caofeidian Port Co., Ltd.	A subsidiary of Huaneng Group
Beijing Changping Huaneng Training Center	A subsidiary of Huaneng Group
Huaneng Overseas Enterprise Management Limited	A subsidiary of Huaneng Group
Huaneng (Dalian) Energy And Heat Co., Ltd.	A subsidiary of Huaneng Group
Huaneng Nuclear Technology Research Institute Co., Ltd.	A subsidiary of Huaneng Group
Green Coal Power Co., Ltd.	A subsidiary of Huaneng Group
Huaneng (Dalian) Energy and Heat Co., Ltd.	A subsidiary of Huaneng Group
Huaneng Jiangsu Energy Development Co., Ltd and its subsidiaries	A subsidiary of Huaneng Group
Huaneng Zhaocai Digital Technology Co., Ltd.	A subsidiary of Huaneng Group
Huaneng Gongrong No.2 (Tianjin) Equity Investment Fund Partnership (Limited Partnership) and its subsidiaries	A subsidiary of Huaneng Group
Huaneng Yuncheng Commercial Factoring (Tianjin) Co., Ltd.	A subsidiary of Huaneng Group
Other government-related enterprises*	Related parties of the Company

* Huaneng Group is a state-owned enterprise. In accordance with the revised IAS 24 *Related Party Disclosures*, government-related enterprises, other than entities under Huaneng Group, over which the PRC government has control, joint control or significant influence, are also considered as related parties of the Group ("other government-related enterprises").

The majority of the business activities of the Group are conducted with other government-related enterprises. For the purpose of the disclosure of the related party balances and transactions, the Group has established procedures to determine, to the extent possible, the identification of the ownership structure of its customers and suppliers as to whether they are government-related enterprises. However, many government-related enterprises have a multi-layered corporate structure and the ownership structures change over time as a result of transfers and privatisation programs. Nevertheless, management believes that all material related party balances and transactions with other government-related enterprises have been adequately disclosed.

In addition to the related party information shown elsewhere in these financial statements, the following is a summary of significant related party transactions entered into in the ordinary course of business between the Group and their related parties during the year and significant balances arising from related party transactions as at the year end.

All transactions with related parties were conducted at prices and on terms mutually agreed by the parties involved, and are based on normal commercial terms or better and with reference to the prevailing local market conditions.

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36 RELATED PARTY BALANCES AND TRANSACTIONS (CONTINUED)

(a) Related party balances

(i) Cash deposits in related parties

	As at 31 December	
	2024	2023
Deposits in Huaneng Finance		
– Savings deposits	**14,471,065**	12,578,897

For the year ended 31 December 2024, the annual interest rates for these savings deposits (as included in bank balances and cash) ranged from 0.35% to 2.75% (2023: from 0.35% to 3.05%).

(ii) As described in Notes 24 and 30, certain loans of the Group were borrowed from Huaneng Group, Huaneng Finance, Tiancheng Financial Leasing, Huaneng Yuncheng Commercial Factoring (Tianjin) Co., Ltd, Hong Kong Asset Management and Shangdong Luyi International Electric Power Co., Ltd.

(iii) Except for those disclosed in Notes 24 and 30, the majority of the balances with Huaneng Group, HIPDC, subsidiaries of Huaneng Group, associates, joint ventures and other related parties are unsecured and receivable/repayable within one year. As at and for the years ended 31 December 2024 and 2023, no provision was made on receivable balances from these parties.

Accounts receivable, other receivables and assets, property, plant and equipment and other non-current assets comprise the following balances due from related parties:

	As at 31 December	
	2024	2023
Due from Huaneng Group	**129,051**	61,851
Due from HIPDC	**308**	445
Due from associates	**234,431**	113,364
Due from joint ventures	**405,448**	548,073
Due from subsidiaries of Huaneng Group	**1,314,222**	620,787
Total	**2,083,460**	1,344,520

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36 RELATED PARTY BALANCES AND TRANSACTIONS (CONTINUED)

(a) Related party balances (Continued)

(iv) Accounts payable and other liabilities, lease liabilities and other non-current liabilities comprise the following balances due to related parties:

	As at 31 December	
	2024	2023
Due to Huaneng Group	**62,052**	31,502
Due to HIPDC	**3,006**	1,787
Due to associates	**248,981**	122,368
Due to joint ventures	**77,110**	236,899
Due to subsidiaries of Huaneng Group	**11,269,663**	15,213,483
Total	**11,660,812**	15,606,039

(v) As at 31 December 2024, included in long-term loans (including current portion) and short-term loans are loans payable to other government-related financial institutions amounting to RMB223.3 billion (31 December 2023: RMB205.2 billion).

The balances with other government-related enterprises also included substantially all the accounts receivable due from domestic power plants of government-related power grid companies, the bank deposits placed with government-related financial institutions as well as accounts payable and other payables arising from the purchases of coal and property, plant and equipment construction and related labour services provided by other government-related enterprises. Except for bank deposits, these balances are unsecured and the majority of the balances are receivable/repayable within one year.

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36 RELATED PARTY BALANCES AND TRANSACTIONS (CONTINUED)

(b) Related party transactions

(i) Procurement of goods and receiving services

	For the year ended 31 December	
	2024	2023
Huaneng Group		
Purchase of technical services, engineering contracting services and others	**315**	800
Other purchases	**–**	551
Subsidiaries of Huaneng Group		
Purchase of coal and transportation services	**64,851,280**	78,078,962
Purchase of technical services, engineering contracting services and others	**2,754,030**	2,336,193
Purchase of ancillary equipment and parts	**948,339**	406,255
Purchase of heat	**129,245**	84,113
Other purchases	**103,035**	131,666
Purchase of carbon emission reduction resources and related services	**75,467**	58,134
Joint ventures of the Group		
Purchase of coal and transportation services	**648,221**	670,768
Purchase of technical services, engineering contracting services and others	**7,647**	4,400
Associates of the Group		
Purchase of ancillary equipment and parts	**16,472**	21,806
Purchase of coal and transportation services	**1,533,586**	1,547,120

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36 RELATED PARTY BALANCES AND TRANSACTIONS (CONTINUED)

(b) Related party transactions (Continued)

(ii) Sales of goods and providing services

	For the year ended 31 December	
	2024	2023
Huaneng Group		
Services provided	**148,691**	129,539
HIPDC		
Services provided	**347**	423
Subsidiaries of Huaneng Group		
Service provided	**574,450**	258,217
Sales of heat	**53,071**	228,821
Sales of coal and transportation services	**7,365**	15,780
Sales of carbon emission reduction resources and related services	**11,840**	278,611
Other sales	**30**	–
Joint ventures of the Group		
Service provided	**118,465**	107,749
Sales of coal and transportation services	**641,953**	13,017
Other sales	**–**	172
Associates of the Group		
Sales of heat	**49,018**	62,614
Other sales	**8,066**	4,212

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36 RELATED PARTY BALANCES AND TRANSACTIONS (CONTINUED)

(b) Related party transactions (Continued)

(iii) Other related party transactions

(1) Rental charge paid

Lessor name	Types of leased assets	Rental charges for short-term leases and leases of low-value assets for simplified processing (if applicable) For the year ended 31 December		Variable lease payments not included in the measurement of the lease liability (if applicable) For the year ended 31 December		Rent paid For the year ended 31 December		Assume interest expense on lease liability For the year ended 31 December		Increase in right-of-use assets For the year ended 31 December	
		2024	2023	**2024**	2023	**2024**	2023	**2024**	2023	**2024**	2023
HIPDC	Transmission and transformation facilities	**47,947**	47,947	**–**	–	**–**	–	**–**	–	**–**	–
HIPDC	Land	**–**	–	**–**	–	**1,489**	1,389	**863**	962	**–**	–
HIPDC	Office building	**7,959**	7,959	**–**	–	**–**	–	**–**	–	**–**	–
Huaneng Group	Office building	**1,234**	1,234	**–**	–	**–**	–	**–**	–	**–**	–
Subsidiaries of Huaneng Group	Office building	**84,566**	58,809	**–**	–	**79,438**	78,982	**4,238**	6,640	**134**	205,266
Subsidiaries of Huaneng Group	Mechanical equipment	**58**	–	**–**	–	**–**	1,233,924	**–**	44,252	**–**	–
Total		**141,764**	115,949	**–**	–	**80,927**	1,314,295	**5,101**	51,854	**134**	205,266

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36 RELATED PARTY BALANCES AND TRANSACTIONS (CONTINUED)

(b) Related party transactions (Continued)

(iii) Other related party transactions (Continued)

		For the year ended 31 December	
		2024	2023
(2)	**Rental income received**		
	Huaneng Group	**718**	1,130
	A joint venture of the Group	**6,612**	6,612
	Subsidiaries of Huaneng Group	**11,112**	13,662
(3)	**Net loans (repaid to)/received from**		
	Huaneng Group	**(1,749,800)**	77,780
	Subsidiaries of Huaneng Group	**(3,906,631)**	1,568,524
	A joint venture of the Group	**166,156**	–
(4)	**Interest expense on loans**		
	Huaneng Group	**10,315**	41,656
	Subsidiaries of Huaneng Group	**734,057**	714,045
(5)	**Interest income on entrusted loans**		
	A joint venture of the Group	**3,531**	3,208
(6)	**Recover the entrusted loans**		
	A joint venture of the Group	**70,000**	2,000
(7)	**Capital injection from**		
	Subsidiaries of Huaneng Group	**125,496**	1,440,373

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36 RELATED PARTY BALANCES AND TRANSACTIONS (CONTINUED)

(b) Related party transactions (Continued)

(iii) Other related party transactions (Continued)

		For the year ended 31 December	
		2024	2023
(8)	**Capital injection to**		
	Subsidiaries of Huaneng Group	**230,175**	556,000
	Associates of the Group	**567,669**	23,000
	Joint ventures of the Group	**465,575**	53,028
(9)	**Entrusted management fee**		
	Huaneng Group	**14,087**	14,118
	Subsidiaries of Huaneng Group	**5,990**	1,420
(10)	**Trusteeship management income**		
	Huaneng Group	**6,019**	5,595
	Subsidiaries of Huaneng Group	**174,293**	187,855
	Associates of the Group	**2,390**	–
	Joint ventures of the Group	**25,321**	–
(11)	**Interest expense on trust loans**		
	Subsidiaries of Huaneng Group	**418,579**	414,880
(12)	**Disposal of Associate of the Group**		
	Subsidiaries of Huaneng Group	**–**	4,203,481

Transactions with government-related enterprises

or the years ended 31 December 2024 and 2023, apart from the overseas power segment, the Group sold substantially all its products to local government-related power grid companies. Please refer to Note 5 for details of sales information to major power grid companies.

For the years ended 31 December 2024 and 2023, other collectively-significant transactions with government-related enterprises also included a large portion of domestic fuel purchases, property, plant and equipment construction and related labour employed.

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36 RELATED PARTY BALANCES AND TRANSACTIONS (CONTINUED)

(c) Balance of guarantees

	As at 31 December	
	2024	2023
Guarantee provided for		
– Subsidiaries of Huaneng Group	**88,652**	420,310

(d) Pre-tax benefits and social insurance of key management personnel

	For the year ended 31 December	
	2024	2023
Salaries	**8,432**	6,862
Pension	**1,672**	1,204
Total	**10,104**	8,066

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36 RELATED PARTY BALANCES AND TRANSACTIONS (CONTINUED)

(e) Related party commitments

Related party commitments which were contracted but not recognised in the consolidated statement of financial position as at the end of the reporting period are as follows:

(i) Capital commitments

	As at 31 December	
	2024	2023
Huaneng group	**–**	4,860
Subsidiaries of Huaneng Group	**1,148,278**	2,316,617

(ii) Fuel purchase and transportation commitments

	As at 31 December	
	2024	2023
Subsidiaries of Huaneng Group	**5,059,690**	3,656,242
A joint venture of the Group	**142,192**	179,328
Associates of the Group	**764,976**	948,306

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36 RELATED PARTY BALANCES AND TRANSACTIONS (CONTINUED)

(f) Applicability of the Listing Rules relating to connected transactions

The related party transactions with HIPDC, Huaneng Group and its subsidiaries in respect of the purchase of coal and transportation services, equipment, technical services and engineering contracting services, leasing rental and interest expenses incurred by the Group as disclosed in Note 36(b) constitute connected transactions or continuing connected transactions as defined in Chapter 14A of the Listing Rules. The disclosures required by Chapter 14A of the Listing Rules are included in the section "Connected transactions" of the Directors' Report of the Group for the year ended 31 December 2024.

37 LABOUR COST

Other than the salaries and staff welfare, the labour cost of the Group mainly comprises the following:

All PRC employees of the Group are entitled to a monthly pension upon their retirement. The PRC government is responsible for the pension liability to these employees on retirement. The Group is required to make contributions to the publicly administered retirement plan for its PRC employees at a specified rate, currently set at 14% to 16% (2023: 14% to 16%) of the basic salary of the PRC employees. The retirement plan contributions paid by the Group for the year ended 31 December 2024 were approximately RMB1,636 million (2023: RMB1,589 million), including approximately RMB1,621 million (2023: RMB1,564 million) charged to profit or loss.

In addition, the Group has also implemented a supplementary defined contribution retirement scheme for PRC employees. Under this scheme, the employees are required to make a specified contribution based on the number of years of service with the Group, and the Group is required to make a contribution equal to two to four times the employees' contributions. The employees will receive the total contributions upon their retirement. For the year ended 31 December 2024, the contributions to the supplementary defined contribution retirement scheme paid by the Group amounted to approximately RMB935 million (2023: RMB881 million), including approximately RMB925 million (2023: RMB867 million) charged to profit or loss.

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37 LABOUR COST (CONTINUED)

SinoSing Power and its subsidiaries in Singapore appropriate at a specified rate, currently set at 7.5% to 17% (2023: 7.5% to 17%) of the basic salary to central provident funds in accordance with the local government regulations. The contributions made by SinoSing Power and its subsidiaries for the year ended 31 December 2024 amounted to approximately RMB28.26 million (2023: RMB41.95 million), all of which were charged to profit or loss.

The Group has no further obligation for post-retirement benefits beyond the annual contributions made above.

In addition, the Group also makes contributions of housing funds and social insurance to the social security institutions at specified rates of the basic salary and no more than the upper limit. The expenditures are allocated to the cost of assets or charged to profit or loss. The housing funds and social insurance contributions paid by the Group amounted to approximately RMB1,449 million (2023: RMB1,399 million) and RMB1,405 million (2023: RMB1,433 million) for the year ended 31 December 2024 including approximately RMB1,433 million (2023: RMB1,375 million) and RMB1,344 million (2023: RMB1,381 million) charged to profit or loss, respectively.

Five highest paid individuals

The five individuals whose emoluments were the highest in the Group for the year included one director (2023: one supervisor) whose emoluments are reflected in the analysis presented in Note 38. The emoluments payable to the remaining four (2023: four) highest paid individuals during the year (within the range of RMB1.0 million to RMB2.0 million) are as follows:

	For the year ended 31 December	
	2024	2023
Basic salaries	**883**	651
Performance bonuses	**5,129**	3,612
Pension	**814**	748
Total	**6,826**	5,011

The remuneration disclosed above includes pre-tax salary income and the Group's contribution on pension insurance, enterprise annuity and housing funds and other items.

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38 DIRECTORS', SUPERVISORS' AND SENIOR MANAGEMENT'S EMOLUMENTS

(a) Pre-tax benefits and social insurance of directors and supervisors

The remuneration of every director and supervisor of the Company for the year ended 31 December 2024 is set out below:

	Fees	Basic salaries	Performance bonuses	Pension	Total
Name of director					
Mr. Wang Kui[2]	–	–	–	–	–
Mr. Wang zhijie[3]	–	245	388	181	814
Mr. Huang Lixin[3]	–	282	1,129	213	1,624
Mr. Wang Jianfeng[3]	–	–	–	–	–
Mr. Cao Xin[3]	–	–	–	–	–
Mr. Ding Xuchun[3]	–	–	–	–	–
Mr. Zhou Yi	–	–	–	–	–
Mr. Du Daming	–	–	–	–	–
Mr. Li Haifeng	–	–	–	–	–
Mr. Li Lailong	–	–	–	–	–
Mr. Xia Qing	300	–	–	–	300
Mr. He Qiang[3]	300	–	–	–	300
Ms. Zhang Liying[3]	300	–	–	–	300
Mr. Zhang Shouwen[3]	300	–	–	–	300
Ms. Dang Ying[3]	300	–	–	–	300
Sub-total	1,500	527	1,517	394	3,938
Name of supervisor					
Mr. Cao Shiguang[3]	–	–	–	–	–
Ms. Kou Yaozhou[3]	–	–	–	–	–
Mr. Song Taiji[3]	–	–	–	–	–
Mr. Zhu Tong	–	175	932	199	1,306
Mr. Xia Aidong	–	–	–	–	–
Mr. Wang Yu[3]	–	161	764	186	1,111
Sub-total	–	336	1,696	385	2,417
Total	1,500	863	3,213	779	6,355

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38 DIRECTORS', SUPERVISORS' AND SENIOR MANAGEMENT'S EMOLUMENTS (CONTINUED)

(a) Pre-tax benefits and social insurance of directors and supervisors (Continued)

The remuneration of every director and supervisor of the Company for the year ended 31 December 2023 is set out below:

	Fees	Basic salaries	Performance bonuses	Pension	Total
Name of director					
Mr. Zhao Keyu[1]	–	188	627	120	935
Mr. Wang Kui[2]	–	–	–	–	–
Mr. Huang Lixin[3]	–	–	–	–	–
Mr. Wang Jianfeng[3]	–	–	–	–	–
Mr. Du Daming[3]	–	–	–	–	–
Mr. Zhou Yi[3]	–	–	–	–	–
Mr. Li Lailong[3]	–	–	–	–	–
Mr. Cao Xin[3]	–	–	–	–	–
Mr. Ding Xuchun[3]	–	–	–	–	–
Mr. Li Haifeng	–	–	–	–	–
Mr. Lu Fei[4]	–	–	–	–	–
Mr. Huang Jian[4]	–	–	–	–	–
Mr. Teng Yu[4]	–	–	–	–	–
Mr. Mi Dabin[4]	–	–	–	–	–
Mr. Cheng Heng[4]	–	–	–	–	–
Mr. Lin Chong[4]	–	–	–	–	–
Mr. Xu Mengzhou[4]	300	–	–	–	300
Mr. Liu Jizhen[4]	300	–	–	–	300
Mr. Xu Haifeng[4]	300	–	–	–	300
Mr. Zhang Xianzhi[4]	300	–	–	–	300
Mr. Xia Qing	300	–	–	–	300
Mr. He Qiang[3]	–	–	–	–	–
Ms. Zhang Liying[3]	–	–	–	–	–
Mr. Zhang Shouwen[3]	–	–	–	–	–
Ms. Dang Ying[3]	–	–	–	–	–
Sub-total	1,500	188	627	120	2,435

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38 DIRECTORS', SUPERVISORS' AND SENIOR MANAGEMENT'S EMOLUMENTS (CONTINUED)

(a) Pre-tax benefits and social insurance of directors and supervisors (Continued)

The remuneration of every director and supervisor of the Company for the year ended 31 December 2023 is set out below: (Continued)

	Fees	Basic salaries	Performance bonuses	Pension	Total
Name of supervisor					
Mr. Li Shuqing[4]	–	–	–	–	–
Mr. Mu Xuan[4]	–	–	–	–	–
Mr. Cao Shiguang[3]	–	–	–	–	–
Ms. Kou Yaozhou[3]	–	–	–	–	–
Mr. Song Taiji[3]	–	–	–	–	–
Mr. Gu Jianguo[4]	–	–	–	–	–
Mr. Xu Jianping[4]	–	108	591	123	822
Mr. Zhu Tong	–	164	901	187	1,252
Mr. Xia Aidong	–	–	–	–	–
Mr. Wang Yu[3]	–	12	132	15	159
Sub-total	–	284	1,624	325	2,233
Total	1,500	472	2,251	445	4,668

1 Resigned on 30 Aug 2023
2 Hired on 29 Aug 2023
3 Hired on 5 Dec 2023
4 Resigned on 5 Dec 2023

During the year, no option was granted to the directors or the supervisors (2023: nil).

During the year, no emolument was paid to the directors or the supervisors (including the five highest paid employees) as an inducement to join or upon joining the Company or as compensation for loss of office (2023: nil).

No director or supervisor had waived or agreed to waive any emoluments during the years 2024 and 2023.

The remuneration of the Company's directors, supervisors and senior management disclosed above includes pre-tax salary income and the Group's contribution on pension insurance, enterprise annuity and housing funds and other items. The remuneration of independent directors is the pre-tax amount of independent directors' allowance.

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39 COMMITMENTS

(a) Capital commitments

Capital commitments mainly relate to the construction of new power projects, certain ancillary facilities and renovation projects for existing power plants. Details of such commitments are as follows:

	As at 31 December	
	2024	2023
Contracted, but not provided	**64,933,598**	68,066,924

(b) Fuel purchase commitments

As at 31 December 2024, the Group has entered into major fuel purchase commitment amounting to approximately RMB16.608 billion (31 December 2023: RMB14.072 billion).

The Group has entered into various long-term fuel supply agreements with various suppliers in securing fuel supply for various periods. All the agreements require minimum, maximum or forecasted volume purchases and subject to certain termination provisions. Related purchase commitments of natural gas are as follows:

		As at 31 December 2024	
	Periods	Purchase quantities	Estimated unit costs (RMB)
A government-related enterprise	2023–2039	**2.8million m³/month***	**3.40/m³**
A government-related enterprise	2025	**38.45million m³/month***	**2.95/m³**
	2025	**4.98million m³/month***	**2.92/m³**
	2025	**44.39million m³/month***	**2.95/m³**
A government-related enterprise	2023-2026	**222million m³/year***	**2.63/m³**
Other suppliers	2025	**138.52-148.52 BBtu**/day**	**appropriately 107,000/BBtu**
	2026	**62.40-82.40 BBtu**/day**	**appropriately 94,000/BBtu**
	2027	**62.40-82.40 BBtu**/day**	**appropriately 94,000/BBtu**
	2028	**62.40-82.40 BBtu**/day**	**appropriately 94,000/BBtu**
	2029	**20.00-62.40 BBtu**/day**	**appropriately 92,000/BBtu**
	2030	**20.00 BBtu**/day**	**appropriately 93,000/BBtu**

* The quantities represent the maximum volume, while others represent the minimum or forecasted volume if not specified.

** BBtu: Billion British Thermal Unit.

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40 NON-CONTROLLING INTERESTS

The following table summarises the information relating to each subsidiary of the Group that has material non-controlling interests ("NCI"):

	Luohuang Power	Beijing Co-generation	Huagan Tianjin	Tianjin Jingchu Power	Ruijin Power Generation	Tianjin Yingchu Power	Shandong Power	Liaoning Clean Power	Huamin Tianjin	Longxing Power
NCI percentage	40%	59%	80%	70.05%	50%	74.98%	20%	22%	80%	80%
31 December 2024										
Non-current assets	2,602,740	5,259,659	3,058,767	1,656,291	6,177,206	1,638,674	63,165,281	17,016,796	3,613,227	2,286,663
Current assets	1,573,918	1,651,596	1,029,834	562,953	1,245,053	692,108	18,011,584	2,201,949	1,542,759	643,924
Non-current liabilities	(463,568)	(152,166)	(22,509)	(2,129)	(2,742,063)	(25,630)	(24,811,737)	(9,878,534)	(13,666)	(21,403)
Current liabilities	(976,676)	(870,880)	(200,597)	(186,060)	(1,821,433)	(176,142)	(26,030,293)	(2,762,235)	(413,694)	(489,800)
Net assets	2,736,414	5,888,209	3,865,495	2,031,055	2,858,763	2,129,010	30,334,835	6,577,976	4,728,626	2,419,384
Carrying amount of NCI	1,094,565	3,474,043	3,092,411	1,422,775	1,429,382	1,596,341	18,949,189	1,599,761	3,782,928	1,935,529
Revenue	5,491,807	5,459,648	2,780,640	1,312,483	5,612,961	1,137,699	33,636,118	1,110,030	3,043,496	1,470,679
Net profit/(loss)	281,526	544,821	117,592	68,001	646,985	(3,887)	1,343,438	(71,584)	355,487	168,320
Total comprehensive income	281,526	544,821	117,592	68,001	646,985	(3,887)	1,498,570	(71,584)	355,487	168,320
Profit/(loss) allocated to NCI	112,610	321,444	94,072	47,635	323,493	(2,916)	967,224	(11,419)	284,390	134,658
Other comprehensive income allocated to NCI	–	–	–	–	–	–	95,536	–	–	–
Cash flows from operating activities	900,678	809,856	501,280	235,870	1,589,189	122,992	7,937,907	213,856	738,976	397,405
Cash flows from investing activities	(338,865)	(389,141)	(287,505)	(139,831)	(263,308)	(631,636)	(8,038,707)	(1,754,481)	(440,390)	(212,120)
Cash flows from financing activities	(577,671)	(472,149)	(229,473)	(48,805)	(1,304,570)	477,582	516,373	1,603,718	(187,100)	(76,488)
Net (decrease)/increase in cash and cash equivalents	(15,858)	(51,434)	(15,698)	47,234	21,311	(31,062)	415,573	63,093	111,486	108,797
Dividends paid to NCI	58,703	278,568	126,315	48,805	–	3,889	261,912	72,167	182,537	65,383

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40 NON-CONTROLLING INTERESTS (CONTINUED)

The following table summarises the information relating to each subsidiary of the Group that has material NCI: (Continued)

	Shantou Lemen power	Tianjin Jitong power	Nanjing Rufeng power
NCI percentage	79.99%	79.88%	80%
31 December 2024			
Non-current assets	7,229,948	5,492,265	7,108,340
Current assets	298,479	513,437	2,912,671
Non-current liabilities	(85,908)	(5,876)	(98,599)
Current liabilities	(968,272)	(344,104)	(383,495)
Net assets	6,474,247	5,655,722	9,538,917
Carrying amount of NCI	5,178,798	4,565,669	7,631,171
Revenue	589,451	671,671	1,276,478
Net profit	419,887	340,137	558,597
Total comprehensive income	419,887	340,137	558,597
Profit allocated to NCI	335,801	278,817	446,887
Other comprehensive income allocated to NCI	–	–	–
Cash flows from operating activities	484,747	635,854	583,982
Cash flows from investing activities	(3,718,059)	(3,715,730)	(5,237,740)
Cash flows from financing activities	3,252,913	3,081,547	4,691,823
Net increase in cash and cash equivalents	19,601	1,671	38,065
Dividends paid to NCI	–	–	3,000

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40 NON-CONTROLLING INTERESTS (CONTINUED)

The following table summarises the information relating to each subsidiary of the Group that has material NCI: (Continued)

	Beijing Co-generation	Shandong Power	Liaoning Clean Power	Huagan Tianjin	Huamin Tianjin
NCI percentage	59%	20%	22%	80%	80%
31 December 2023					
Non-current assets	5,377,569	60,000,170	15,408,792	3,014,713	3,841,572
Current assets	1,709,669	17,431,332	1,890,020	1,234,879	1,159,155
Non-current liabilities	(157,650)	(26,832,555)	(8,419,038)	(22,441)	(14,419)
Current liabilities	(1,114,050)	(25,371,261)	(1,940,696)	(299,774)	(426,069)
Net assets	5,815,538	25,227,686	6,939,078	3,927,377	4,560,239
Carrying amount of NCI	3,431,198	12,706,073	1,715,663	3,656,361	3,648,218
Revenue	5,778,582	34,315,222	1,138,790	2,944,215	3,013,991
Net profit/(loss)	533,564	(660,244)	403,156	12,188	211,481
Total comprehensive income	533,564	(1,341,186)	403,156	12,188	211,481
Profit/(loss) allocated to NCI	314,803	(22,598)	23,008	11,944	169,185
Other comprehensive loss allocated to NCI	–	(405,414)	–	–	–
Cash flows from operating activities	866,198	5,922,749	34,367	471,462	453,238
Cash flows from investing activities	(521,866)	(7,309,906)	(2,585,464)	(45,028)	(1,533,394)
Cash flows from financing activities	(339,032)	2,127,940	2,791,278	(3,866)	1,530,290
Net increase in cash and cash equivalents	5,300	740,783	240,181	422,568	450,134
Dividends paid to NCI	200,029	83,450	17,673	3,583	3,469

NOTES TO THE FINANCIAL STATEMENTS

FOR THE YEAR ENDED 31 DECEMBER 2024
(Prepared in accordance with IFRS Accounting Standards)
(Amounts expressed in thousands of RMB)

41 LEASES

The Group as a lessee

(a) Right-of-use assets

The carrying amounts of the Group's right-of-use assets and the movements during the year are as follows:

	Right-of-use assets					
	Buildings	Electric utility plant in service	Trans-portation facilities	Land use rights*	Others	Total
As at 1 January 2024	**2,314,456**	**2,468,992**	**220,408**	**14,542,335**	**1,478,470**	**21,024,661**
Additions	**1,158,357**	**–**	**886**	**3,718,615**	**844,171**	**5,722,029**
Acquisition	**354**	**–**	**–**	**29,447**	**–**	**29,801**
Depreciation charge	**(233,006)**	**(192,365)**	**(14,770)**	**(633,252)**	**(88,795)**	**(1,162,188)**
Disposals/write-off	**(4,162)**	**(492,021)**	**–**	**(56,024)**	**–**	**(552,207)**
Early termination and reclassification	**–**	**(214,638)**	**–**	**(145,380)**	**–**	**(360,018)**
Currency translation differences	**3,420**	**(35)**	**2,890**	**(7,856)**	**(608)**	**(2,189)**
Impairment	**(4,558)**	**(13,189)**	**–**	**–**	**–**	**(17,747)**
As at 31 December 2024	**3,234,861**	**1,556,744**	**209,414**	**17,447,885**	**2,233,238**	**24,682,142**
As at 1 January 2023	238,811	4,064,607	256,615	13,518,195	920,605	18,998,833
Additions	2,306,161	187,271	–	1,643,126	612,836	4,749,394
Depreciation charge	(194,158)	(214,993)	(13,272)	(474,446)	(56,930)	(953,799)
Disposals/write-off	(16,608)	(395,430)	–	(162,473)	–	(574,511)
Early termination	(20,246)	(1,172,607)	(2,582)	(10,732)	(265)	(1,206,432)
Currency translation differences	496	144	(20,353)	28,665	2,224	11,176
As at 31 December 2023	2,314,456	2,468,992	220,408	14,542,335	1,478,470	21,024,661

* As at 31 December 2024, the Group was in the process of applying to the government for the certificates of use rights for certain land use rights with an aggregate net book value of RMB66.80 million (31 December 2023: RMB45.75 million). Management is of the opinion that the Group is entitled to the lawful and valid occupation and use of the abovementioned land. There have been no litigations, claims or assessments against the Group for compensation with respect to the use of these land use rights as at the date of approval of these financial statements.

NOTES TO THE FINANCIAL STATEMENTS

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41 LEASES (CONTINUED)

The Group as a lessee (Continued)

(b) Lease liabilities

The carrying amount of lease liabilities and the movements during the year are as follows:

	For the year ended 31 December	
	2024	2023
Carrying amount at 1 January	**7,994,047**	6,631,875
New leases	**4,435,775**	4,159,547
Accretion of interest recognised during the year	**340,410**	325,744
Currency translation differences	**9,838**	6,889
Payments	**(4,374,884)**	(1,805,303)
Early termination and reclassification	**(304,596)**	(1,324,705)
Carrying amount at 31 December	**8,100,590**	7,994,047
Analysed into:		
Current portion	**670,924**	1,279,447
Non-current portion	**7,429,666**	6,714,600

The maturity profile of the Group's lease liabilities as at the end of the reporting period, based on the contractual undiscounted payments, is as follows:

	As at 31 December	
	2024	2023
Within 1 year	**937,403**	1,500,094
After 1 year but within 2 years	**852,207**	831,809
After 2 years but within 3 years	**710,154**	617,588
After 3 years	**8,831,519**	7,838,158
Subtotal	**11,331,283**	10,787,649
Unrecognised finance fees	**(3,230,693)**	(2,793,602)
Total	**8,100,590**	7,994,047

(Amounts expressed in thousands of RMB)

41 LEASES (CONTINUED)

The Group as a lessee (Continued)

(b) Lease liabilities (Continued)

The amounts recognised in profit or loss in relation to leases are as follows:

	For the year ended 31 December	
	2024	2023
Interest on lease liabilities	**296,106**	255,306
Depreciation charge of right-of-use assets	**1,091,219**	788,698
Expense relating to short-term leases	**529,444**	293,015
Expense relating to leases of low-value assets	**1,055**	1,133
Total amount recognised in profit or loss	**1,917,824**	1,338,152

(c) Extension and termination options

The Group has several lease contracts that include extension and termination options. These options are negotiated by management to provide flexibility in managing the leased-asset portfolio and they are aligned with the Group's business needs. As at 31 December 2024, there were neither extension options that the Group does not expect to exercise nor significant termination options that the Group expects to exercise.

(d) Variable lease payments

The Group does not have variable lease payments that depend on an index or a rate, and amounts expected to be paid under residual value guarantees.

(e) The total cash outflow for leases is disclosed in Note 35 to these financial statements.

NOTES TO THE FINANCIAL STATEMENTS

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(Prepared in accordance with IFRS Accounting Standards)
(Amounts expressed in thousands of RMB)

41 LEASES (CONTINUED)

The Group as a lessor

(a) Finance lease

The Group's finance lease is mainly related to Ruyi Pakistan Energy, SinoSing Power and Shandong Energy Engineering.

Ruyi Pakistan Energy entered into a power purchase agreement with CPPA-G to sell all of the electricity produced with a regulated tariff mechanism approved by the Pakistan National Electric Power Regulatory Authority. In accordance with the power purchase agreement and tariff mechanism, almost all the risks and rewards in relation to the power assets were in substance transferred to CPPA-G and therefore the assets were accounted for as a finance lease to CPPA-G.

SinoSing Power entered into infrastructure lease arrangements with Neste Oil Singapore Pte Ltd., which constituted a finance lease.

Shandong Energy Engineering entered into a contract energy management agreement for the BOT model with Huaneng Lijin Wind Power Co., Ltd. and Huaneng Zhongdian Weihai Wind Power Co., Ltd., which constituted a finance lease of new energy wind turbine blade transformation assets.

Total finance lease income recognised by the Group for the year ended 31 December 2024 was RMB1,335 million (2023: RMB1,404 million).

As at 31 December 2024, the maturity analysis of the Group's finance lease receivables is as follows:

	As at 31 December	
	2024	2023
Within 1 year	**2,293,667**	2,377,702
After 1 year but within 2 years	**2,251,835**	2,291,623
After 2 years but within 3 years	**2,202,755**	2,245,849
After 3 years but within 4 years	**1,961,330**	2,197,324
After 4 years but within 5 years	**920,802**	915,514
After 5 years	**13,281,285**	15,515,355
Total undiscounted finance lease payments	**22,911,674**	25,543,367
Unearned finance income	**(14,740,620)**	(16,684,526)
Allowance for ECL	**(5,896)**	(3,992)
Total finance lease receivables as at 31 December (Notes 15 and 17)	**8,165,158**	8,854,849

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(Prepared in accordance with IFRS Accounting Standards)
(Amounts expressed in thousands of RMB)

41 LEASES (CONTINUED)

The Group as a lessor (Continued)

(b) Operating lease

The Group leases certain property, plant and equipment under operating lease arrangements. Rental income recognised by the Group for the year ended 31 December 2024 was RMB77 million (2023: RMB83 million).

As at 31 December 2023 and 2024, the undiscounted lease payments receivable by the Group in future periods under non-cancellable operating leases with its tenants are as follows:

	As at 31 December	
	2024	2023
Within 1 year	**9,164**	11,216
After 1 year but within 2 years	**8,536**	9,164
After 2 years but within 3 years	**7,500**	8,536
After 3 years but within 4 years	**7,500**	7,500
After 4 years but within 5 years	**7,500**	7,500
After 5 years	**–**	7,500
Total	**40,200**	51,416

NOTES TO THE FINANCIAL STATEMENTS

FOR THE YEAR ENDED 31 DECEMBER 2024
(Prepared in accordance with IFRS Accounting Standards)
(Amounts expressed in thousands of RMB)

42 STATEMENT OF FINANCIAL POSITION OF THE COMPANY

	As at 31 December	
	2024	2023
ASSETS		
Non-current assets		
Property, plant and equipment	**21,088,659**	22,447,817
Right-of-use assets	**1,548,338**	914,089
Investments in associates and joint ventures	**12,431,403**	12,246,194
Investments in subsidiaries	**151,949,205**	146,031,254
Loans to subsidiaries	**11,982,594**	12,224,994
Investment property	**130,011**	135,520
Other equity instrument investment	**447,482**	500,485
Deferred income tax assets	**170,424**	301,727
Goodwill	**106,854**	106,854
Other non-current assets	**28,831,223**	23,981,328
Total non-current assets	**228,686,193**	218,890,262
Current assets		
Inventories	**1,867,699**	1,472,703
Other receivables and assets	**2,613,173**	7,567,365
Accounts receivable	**3,476,879**	3,682,514
Loans to subsidiaries	**549,595**	735,618
Bank balances and cash	**875,099**	448,820
Total current assets	**9,382,445**	13,907,020
Total assets	**238,068,638**	232,797,282
EQUITY AND LIABILITIES		
Equity		
Share capital	**15,698,093**	15,698,093
Capital surplus	**25,559,490**	25,612,315
Other equity instruments	**80,170,696**	79,626,169
Surplus reserves	**8,140,030**	8,140,030
Reserve funds	**131,410**	101,078
Retained earnings	**17,721,281**	23,063,860
Total equity	**147,421,000**	152,241,545

NOTES TO THE FINANCIAL STATEMENTS

FOR THE YEAR ENDED 31 DECEMBER 2024
(Prepared in accordance with IFRS Accounting Standards)
(Amounts expressed in thousands of RMB)

42 STATEMENT OF FINANCIAL POSITION OF THE COMPANY (CONTINUED)

	As at 31 December	
	2024	2023
EQUITY AND LIABILITIES (Continued)		
Non-current liabilities		
Long-term loans	**5,123,192**	16,387,718
Long-term bonds	**35,087,605**	23,301,877
Lease liabilities	**26,973**	36,146
Other non-current liabilities	**319,077**	822,598
Total non-current liabilities	**40,556,847**	40,548,339
Current liabilities		
Accounts payable and other liabilities	**6,009,695**	4,314,730
Contract liabilities	**609,739**	550,522
Taxes payable	**207,171**	165,674
Short-term bonds	**8,017,110**	5,508,789
Short-term loans	**22,082,549**	17,888,386
Current portion of long-term loans	**7,433,863**	64,992
Current portion of long-term bonds	**5,727,268**	11,481,136
Current portion of lease liabilities	**3,396**	33,169
Total current liabilities	**50,090,791**	40,007,398
Total liabilities	**90,647,638**	80,555,737
Total equity and liabilities	**238,068,638**	232,797,282

NOTES TO THE FINANCIAL STATEMENTS

FOR THE YEAR ENDED 31 DECEMBER 2024
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(Amounts expressed in thousands of RMB)

43 SUBSEQUENT EVENTS

On 25 March 2025, the Board of Directors proposed a cash dividend of RMB0.27 (inclusive of tax) for each ordinary share amounting to RMB4,238 million for the year of 2024. This proposal is subject to the approval of the shareholders at the annual general meeting.

Except that, up to the annual report date, there was no other significant subsequent event.

44 CONTINGENT LIABILITIES

Disputes over responsibilities for damage caused by vessel collision over the 400MW Offshore Wind Power Project of Shengdong Rudong Offshore Windpower Co., Ltd. ("Shengdong Rudong").

Shengdong Rudong, a subsidiary of the Company, was in charge of the construction and operation of a 400MW Offshore Wind-power Project. As stipulated by the construction contract signed between Shengdong Rudong and CCCC Third Harbor Engineering Bureau Co., Ltd. ("CCCC Third Harbor Bureau") on 18 April 2019, CCCC Third Harbor Bureau was responsible for the construction of the offshore wind farm and related construction safety management. On 1 August 2019, a vessel chartering contract was signed between CCCC Third Harbor Bureau and Nantong Ocean Water Construction Engineering Co., Ltd. ("Nantong Water Construction"). As stipulated by the contract, Vessel "Wen Qiang 8", which was owned by Nantong Water Construction, would be chartered by CCCC Third Harbor Bureau as the construction operation vessel. During the chartering period, Nantong Water Construction was responsible for the safety of Vessel "Wen Qiang 8" and the security of the personnel on board.

On 22 September 2019, in order to evade typhoon, Vessel "Wen Qiang 8" anchored nearby the 32# wind turbine pile foundation of Shengdong Rudong 400MW Offshore Wind-farm located around Nantong coastal area. Affected by strong wind, violent waves and big tides, the anchor steel cable was broken, leading to dragging-of-anchor of Vessel "Wen Qiang 8", and collision with the pipeline bridge of land-island access of Nantong Gang Yangkou Port. The pipeline bridge, bearing line pipes, and Vessel "WenQiang 8" all suffered damages from this collision accident, constituting a relatively large level of water traffic accident.

The above accident has resulted in three lawsuits, with the litigation claiming amount being approximately RMB703 million in total. Shengdong Rudong, together with other several entities, were joint defendants. The second court hearing has been held by the court in December 2023, according to the situation of prior two court hearings, considering the large amount of litigation, and joint defendants may benefit the limitation of liability for maritime claims, etc., a provision of RMB70 million was recognised in other operating expenses in 2023 by Shengdong Rudong.

44 CONTINGENT LIABILITIES (CONTINUED)

In April 2024, the Shanghai Maritime Court made a first-instance judgement in this case, ruling that Shengdong Rudong had no liability. The plaintiff, dissatisfied with the first-instance judgement, filed an appeal for a second-instance trial. In September 2024, the Shanghai Higher People's Court made a second-instance judgement, ruling to dismiss the appeal and uphold the original judgement.

Based on the professional advice of legal counsel, Shengdong Rudong believes that the plaintiff, considering various factors, may file a retrial with the Supreme People's Court. In light of the expectation that the plaintiff may apply for a retrial, there remains significant uncertainty regarding the case. Therefore, Shengdong Rudong has decided not to reverse the provision for estimated liabilities that were accrued in 2023. As of the date of the annual report, Shengdong Rudong has not yet received any legal documents or notifications from the plaintiff initiating the retrial procedure.

RECONCILIATION OF FINANCIAL STATEMENTS BETWEEN PRC GAAP AND IFRS ACCOUNTING STANDARDS

For the year ended 31 December 2024
(Amounts expressed in thousands of RMB unless otherwise stated)

The financial statements, which have been prepared by the Group in conformity with Accounting Standards for Business Enterprises ("PRC GAAP"), differ in certain respects from those of IFRS accounting standards. The major impact of adjustments for IFRS accounting standards, on the net consolidated profit and equity attributable to equity holders of the Company, is summarised as follows:

	Consolidated profit attributable to equity holders of the Company For the year ended 31 December		Total equity attributable to equity holders of the Company As at 31 December	
	2024	**2023**	**2024**	2023
Consolidated net profit/equity attributable to equity holders of the Company under PRC GAAP	**10,135,494**	8,445,560	**137,414,785**	132,138,664
Impact of IFRS accounting standards adjustments:				
Differences in accounting treatment on business combinations under common control, depreciation, amortisation, disposal and impairment of assets acquired in business combinations under common control (a)	**(601,352)**	(872,451)	**4,508,171**	5,109,523
Difference on depreciation related to borrowing costs capitalised in previous years (b)	**(5,815)**	(16,111)	**31,825**	37,640
Difference on reserve funds (c)	**378,689**	419,686	**–**	–
Others	**(36,349)**	(55,816)	**(510,868)**	(495,864)
Applicable deferred income tax impact on the GAAP differences above (d)	**161,473**	211,635	**3,502,091**	3,340,618
Profit/equity attributable to non-controlling interests on the adjustments above	**152,493**	224,957	**(1,151,675)**	(1,367,466)
Consolidated net profit/equity attributable to equity holders of the Company under IFRS accounting standards	**10,184,633**	8,357,460	**143,794,329**	138,763,115

RECONCILIATION OF FINANCIAL STATEMENTS BETWEEN PRC GAAP AND IFRS ACCOUNTING STANDARDS

For the year ended 31 December 2024

(Amounts expressed in thousands of RMB unless otherwise stated)

(a) Differences in accounting treatment on business combinations under common control and depreciation, amortisation, disposal and impairment under common control

Huaneng Group is the parent company of HIPDC, which in turn is also the ultimate parent of the Company. The Company has carried out a series of acquisitions from Huaneng Group and HIPDC in recent years. As the acquired power companies and plants and the Company were under common control of Huaneng Group before and after the acquisitions, such acquisitions were regarded as business combinations under common control.

In accordance with PRC GAAP, for business combinations under common control, the assets and liabilities acquired in business combinations are measured at the carrying amounts of the acquirees in the consolidated financial statements of the ultimate controlling party on the acquisition date. The difference between the carrying amounts of the net assets acquired and the consideration paid is adjusted to the equity account of the acquirer. The operating results for all periods presented are retrospectively restated as if the current structure and operations resulting from the acquisition had been in existence since the beginning of the earliest year presented, with financial data of previously separate entities consolidated. The cash consideration paid by the Company is treated as an equity transaction in the year of acquisition. The subsequent adjustment of contingent consideration after the acquisition date is also accounted for as an equity transaction.

For business combinations occurred prior to 1 January 2007, in accordance with the previous PRC GAAP, when equity interests acquired were less than 100%, the assets and liabilities of the acquirees were measured at their carrying amounts. The excess of the consideration over the proportionate share of the carrying amounts of the net assets acquired was recorded as an equity investment difference and amortised on a straight-line basis for not more than 10 years. When acquiring the entire equity, the entire assets and liabilities are accounted for in a manner similar to purchase accounting. Goodwill arising from such transactions was amortised over the estimated useful lives on a straight-line basis. On 1 January 2007, in accordance with PRC GAAP, the unamortised equity investment differences and goodwill arising from business combinations under common control were written off against undistributed profits.

Under IFRS accounting standards, the Company and its subsidiaries have adopted the purchase method to account for the acquisitions above. The assets and liabilities acquired in acquisitions were recorded at fair value by the acquirer. The excess of the acquisition cost over the proportionate share of fair value of net identifiable assets acquired was recorded as goodwill. Goodwill is not amortised but is tested annually for impairment and carried at cost less accumulated impairment losses. The operating results of the acquirees are consolidated in the operating results of the Company and its subsidiaries from the acquisition dates onwards. The contingent consideration not classified as equity is measured at fair value at each reporting date with the changes in fair value recognised in profit or loss, if such changes are not measurement period adjustments.

As mentioned above, the differences in the accounting treatment under PRC GAAP and IFRS accounting standards on business combinations under common control affect both equity and profit. Meanwhile, due to different measurement bases of the assets acquired, depreciation and amortisation in the period subsequent to the acquisition will be affected which will also affect the equity and profit or loss upon subsequent disposals and impairment of such investments. Such differences will be gradually eliminated following subsequent depreciation, amortisation and disposal of the related assets.

RECONCILIATION OF FINANCIAL STATEMENTS BETWEEN PRC GAAP AND IFRS ACCOUNTING STANDARDS

For the year ended 31 December 2024

(Amounts expressed in thousands of RMB unless otherwise stated)

(b) Effect of depreciation on the capitaliSation of borrowing costs in previous years

In previous years, under the previous PRC GAAP, the scope of capitalisation of borrowing costs was limited to specific borrowings, and thus, borrowing costs arising from general borrowings were not capitalised. In accordance with IFRS accounting standards, the Company and its subsidiaries capitalised borrowing costs on general borrowings used for the purpose of obtaining qualifying assets in addition to the capitalisation of borrowing costs on specific borrowings. From 1 January 2007 onwards, the Company and its subsidiaries adopted PRC GAAP No.17 prospectively. The current adjustments represent the related depreciation on capitalised borrowing costs included in the cost of the related assets under IFRS accounting standards in previous years.

(c) EFFECT OF RESERVE FUNDS

Reserve funds represent safety funds. In accordance with PRC GAAP, appropriation of safety funds is recognized in profit or loss and to reserve funds. In accordance with IFRS accounting standards, unutilized safety funds are treated as appropriation from retained earnings to reserve funds and the relevant expenses are recognized in profit or loss only when it is incurred.

(d) DEFERRED INCOME TAX IMPACT ON GAAP DIFFERENCES

This represents related deferred income tax impact on the GAAP differences above where applicable.

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