華能國際電力股份有限公司
HUANENG POWER INTERNATIONAL, INC.

(a Sino-foreign joint stock limited company incorporated in the People's Republic of China)

(Stock Code: 902)

ANNOUNCEMENT OF ANNUAL RESULTS FOR 2023

Electricity sold by domestic power plants:	**447.856 billion kWh**
Consolidated operating revenue:	**RMB254,397 million**
Net profit attributable to equity holders of the Company:	**RMB8,357 million**
Earnings per share:	**RMB0.35**
Proposed dividend:	**RMB0.20 per ordinary share (inclusive of tax)**

SUMMARY OF OPERATING RESULTS

The Board of Directors (the "**Board**") of Huaneng Power International, Inc. (the "**Company**" or "**Huaneng International**") hereby announces the audited operating results of the Company and its subsidiaries for the year ended 31 December 2023.

For the twelve months ended 31 December 2023, the Company and its subsidiaries realized consolidated operating revenue of RMB254,397 million, representing an increase of 3.11% compared to the same period last year, and net profit attributable to equity holders of the Company amounted to RMB8,357 million, representing an increase of RMB16.384 billion and 204.13% as compared with the same period last year. Earnings per share amounted to RMB0.35. The Board is satisfied with the results of the Company in the past year.

Details of the operating results are set out in the financial information. Unless otherwise specified, all amounts in this announcement are denominated in Renminbi Yuan.

The Board proposed to declare a cash dividend of RMB0.20 (inclusive of tax) for each ordinary share of the Company held by shareholders.

BUSINESS REVIEW OF YEAR 2023

In 2023, the Company proactively responded to changes of the industry, with all employees making concerted effort and focusing on operational targets. The Company continued to exert efforts on stablilizing production and increasing income, reducing costs and expenditures, and pushing transformation and development, and strove to improve the profitability and operating efficiency. The production of new energy project of the Company hit a record high, and the annual operating results achieved a turnaround, marking a new quality improvement of the Company.

1. Operating Results

For the year ended 31 December 2023, the Company realized operating revenue of RMB254,397 million, representing an increase of 3.11% as compared with the same period last year. Net profit attributable to equity holders of the Company amounted to RMB8,357 million, representing an increase of RMB16.384 billion and 204.13% as compared with the same period last year. The earnings per share amounted to RMB0.35.

As at the end of 2023, net assets per share of the Company amounted to RMB3.77, representing an increase of 10.56% as compared with the same period last year.

The Audit Committee of the Company convened a meeting on 18 March 2024 and reviewed the 2023 annual results of the Company.

2. Power Generation

In 2023, based on the principle of quantity and price co-ordination and efficiency first, the Company strengthened policy research, market analysis and internal professional coordination, constantly optimized marketing strategies, actively responded to the opportunities and challenges in the electricity and heating markets, made every effort to strive for higher electricity transaction prices and heating prices, and strove to generate more profitable electricity. The Company's total electricity sold by the domestic operating power plants on a consolidated basis amounted to 447.856 billion kWh, representing a year-on-year increase of 5.33%. The annual average utilization hours of the Company's domestic power plants were 3,776 hours, representing a year-on-year decrease of 9 hours. In particular, the utilization hours of coal-fired power generating units were 4,388 hours, representing a year-on-year increase of 160 hours. The Company proactively explored the heating market and expanded heating areas, and the total heat supplied by the Company amounted to 342 million GJ, representing a year-on-year increase of 5.93%.

3. Fuel Procurement

In 2023, the domestic coal supply maintained at a high level, and the imported coal supply increased substantially year-on-year. The balance of coal supply and demand shifted from tight to loose situation, and the coal price fluctuated downward, but still remained at a high level. The Company accurately judged 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 constantly optimized the supply structure of domestic and foreign trade, and achieved remarkable results in control of fuel costs. During the year, the Company purchased a total of 212 million tons of coal, and the fuel cost per unit was RMB326.43 per MWh, representing a year-on-year decrease of 12.38%.

4. Environmental Policy and Performance

The Company's safety production, technical-economic and energy consumption indicators continued to maintain a good level throughout the year. In 2023, the average equivalent availability ratio of the domestic thermal power generating units of the Company was 93.76%, coal consumption of power supply was 291.88g/kWh and the house consumption rate of plants was 4.33%. In the benchmark of energy efficiency level of thermal power units in the national power industry in 2022 by the China Electricity Council, the Company has a total of 55 units winning prizes. With respect to air pollution emissions, the Company achieved a full coverage of ultralow emission in 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 closure, and ash yard transformation in power plants in key regions. All power plants have accelerated environmental protection transformation projects to ensure that pollutant emissions meet the stringent requirements under pollution discharge permits and other ecological and environmental protection policies. The Company strictly abides by the Law of the People's Republic of China on Environmental Protection, the Law of the People's Republic of China on Energy Conservation and other laws and regulations in its development, strictly guards against environmental risks, and resolutely polishes the brand of Green Huaneng.

5. Project Development

The Company overcame a variety of adverse factors such as extreme weather, labor shortage, lagged supply of materials and equipment, difficulties in grid connection and coordination, and promoted the construction of power generation projects in an orderly manner. During the year, the Company added a controlled generation capacity of 10,003.9 MW, among which the installed capacity for power generated from low carbon clean energy reached 9,353.9 MW, surpassing the annual target. As of 31 December 2023, the Company's controlled generation installed capacity was 135,655 MW, including 15,511 MW of wind power controlled generation capacity and 13,100 MW of solar energy controlled generation capacity, and low carbon clean energy installed capacity accounted for approximately 31.24%.

6. Scientific and Technological Innovation

In 2023, the Company continued to maintain a large investment in research and development. The scientific and technological innovation work has made remarkable achievements, and the transformation of scientific and technological achievements continued to promote. The technological research and development of large-scale offshore wind power in design, manufacturing, installation, commissioning and operation undertaken by the company and funded by the Ministry of Science and Technology of the People's Republic of China came to a successful conclusion; more than ten technological breakthroughs were made in the research of high-temperature metal materials; the research results of failure analysis of key components of the combustion turbine, non-destructive testing and efficiency diagnosis were included in the catalog of recommended scientific and technological innovations of the state-owned enterprises. The energy-saving technology of deep peaking process of coal-fired units was successfully applied in 600 MW units of Shandong Weihai Power Plant, and the coal saving benefit of variable-load process reached 1.5 g/kWh; the first set of flue gas CO2 capture device of combustion turbine (2,000t/year) was successfully developed in Yangpu Combustion Turbine of Hainan Province; the world's largest 5 MW super capacitor energy storage system was successfully developed in Luoyuan Power Plant of Fujian Province. The world's largest efficient waste heat utilization device of combustion engine flue gas was put into operation in Beijing Thermal Power Plant, and the heating area was increased by 7.5 million square meters; a new type of thermal insulation fiber material was developed in Tianjin Yangliuqing Power Plant, and the value of comprehensive utilization of ash was significantly increased. A total of 617 invention patents, 3,239 utility model patents and 320 international patents have been granted to the Company and its affiliated units.

7. Overseas Business

Tuas Power Ltd. ("**Tuas Power**"), a wholly-owned subsidiary of the Company in Singapore, actively responded to the influence of the tight supply of natural gas in the international market and the adjustment of Singapore's electricity market policy and maintained the long-term safe and stable operation of units. The market share of power generation for the year was 20.4%, maintaining the leading position in the industry. Tuas Power actively strengthened the cooperation with fuel suppliers and continued to optimise the supply structure, ensuring stable fuel supply. Tuas Power actively expanded the retail market and continuously optimized the retail contract structure. Marginal contribution from electricity sales improved year-on-year and profitability increased year-on-year.

The power generation of Tuas Power for the year amounted to 11.271 billion kWh, representing a year-on-year decrease of 1.084 billion kWh; the pre-tax profit was RMB4.355 billion, representing a year-on-year profit increase of RMB2.477 billion.

The Company's business management level in Pakistan has been continuously improved, with 2,400 days of safety production and winning the Reliable Power Plant Award for 5 consecutive years. The Company deepened the improvement of quality and efficiency, greatly reduced production fees and management fees, strengthened fund management, and strengthened the recovery of electricity fees. The operating efficiency remained stable throughout the year, achieving an operating revenue of RMB4,061 million and a total profit of RMB605 million, representing a year-on-year profit increase of RMB9 million.

PROSPECTS FOR 2024

In 2024, the Company will firmly implement the deployment of the State-owned Assets Supervision and Administration Commission of the State Council to improve the quality of listed companies controlled by state-owned enterprises, take building the Company into a world-class enterprise as the main line, focus on the Company's "14th Five-Year Plan" and development strategy, strengthen the determination of green and low-carbon development, and strive to promote the Company's transformation and development. The Company will further leverage the functions of listed companies, pay more attention to excellent operation, value creation and brand building, and forge ahead and work hard to ensure the full completion of the annual goals and tasks and push the Company's high-quality development to a new level.

In terms of power construction, the Company will focus on green and low-carbon transformation, vigorously develop new energy, continuously optimise the development of thermal power, optimise the layout of peak-shaving gas and electricity, and take safe development as the basis, quality and efficiency as the centre, scientific and technological innovation as the support and modern management as the methods to coordinate and grasp the safety, quality, cost, technological innovation, intelligent infrastructure and other comprehensive work, so as to ensure effective improvement of quality and reasonable growth of quantity, and help build a new power system.

In terms of electric power generation, while operating and maintaining the clean energy power generation system, the Company will attach importance to the basic and adjusting roles of existing thermal power generating unit in the energy safety system of the society, actively conduct useful life extension appraisal and transformation, and maintain the health level of standby set for emergency. The Company will actively develop the heat supply industry to upgrade integrated energy services, deeply study the application prospect of biomass-coupled power generation and grasp the market opportunities, and earnestly strengthen the environment protection treatment as demanded by the ecological civilization construction of various regions to consolidate the leading position in safety production, energy conservation and environmental protection.

In terms of electric power marketing, the Company will insist on efficiency first, quantity and price coordination, pay a close attention to the change of the electricity market, comprehensively research and judge the market competition situation and electricity price trend, actively respond to the introduction of electricity price of the capacity of coal-fired units and new energy electricity transactions, fully stabilize the medium and long-term income, and rationally use the spot market rules to obtain spot income. The Company will fully explore the electricity sales market, do a good job in building Huaneng's electricity sales brand, improve the income from electricity sales, and further optimize carbon market transactions. The Company will continue to improve the level of marketing informatization and strengthen the cultivation of talents. The Company will strive to achieve a domestic power generation of around 485 billion kWh in 2024.

In terms of fuel procurement, the Company will scientifically coordinate the relationship between supply assurance and price control, guarantee the fuel supply and control the procurement costs. The Company will make every effort to improve the performance quality of mid-term and long-term contracts and give full play to the role of "cornerstone" in long-term contracts. The Company will also rigidly implement the coal and electricity industry synergy plan and give full play to the role of internal supply underwriting protection. At the same time, the Company will further optimise the coal procurement structure, accurately procure imported coal and make every effort to reduce procurement costs.

In terms of capital, the Company will reinforce the research and judgment on the capital market, increase financing, safeguard fund supply and continue to optimise the financing structure. The Company will rationally determine the financing scale and the timing of the availability of the funding. The Company will also broaden financing channels, make good and full use of green finance policies, and strive to reduce capital costs while ensuring capital security.

OPERATING AND FINANCIAL REVIEWS AND PROSPECTS

MANAGEMENT'S DISCUSSION AND ANALYSIS

(Prepared under International Financial Reporting Standards ("IFRSs"))

General

The principal activities of the Company are investment in, and construction, operation and management of, power plants within China. The Company is one of the largest listed power generation companies in China. As of 31 December 2023, the Company had a controlled installed capacity of 135,655 MW, of which approximately 31.24% was from clean energy sources (gas turbine, hydro, wind, photovoltaic and biomass power generation). The Company located its power plants in 26 provinces, autonomous region and municipalities within China; the Company also owns a wholly owned power enterprise located in Singapore, and invests in a power enterprise located in Pakistan.

For the year ended 31 December 2023, the operating revenue of the Company amounted to RMB254,397 million, representing an increase of 3.11% over the same period of last year. The Company's annual results turned around as a result of the year-on-year decline in unit fuel costs and year-on-year growth in electricity generation from its domestic operations, as well as a significant year-on-year increase in profit from the Company's Singapore operations, among other factors. The net profit attributable to equity holders of the Company was RMB8.357 billion, representing an increase of RMB16.384 billion or 204.13% as compared with the same period of last year; the earnings per share was RMB0.35.

A. OPERATING RESULTS

1. 2023 operating results

The electricity sold by the Company's domestic power plants for the year ended 31 December 2023 is as listed below (in 100 million kWh):

Type/Region	Electricity Sold 2023 1-12	Year-on-Year Change
Coal-fired	**3,758.04**	3.27%
Combined Cycle	**277.06**	5.15%
Wind Power	**318.35**	16.14%
PV	**109.11**	81.67%
Hydro-power	**7.48**	-7.53%
Biomass power	**8.51**	18.29%
Heilongjiang Province	**133.04**	9.96%
Coal-fired	**103.36**	4.51%
Wind Power	**25.17**	36.32%
PV	**2.94**	-4.69%
Biomass power	**1.57**	185.69%
Jilin Province	**126.66**	11.77%
Coal-fired	**80.76**	3.65%
Wind Power	**40.10**	38.34%
Hydro-power	**0.51**	-47.34%
PV	**2.43**	-6.35%
Biomass power	**2.87**	0.04%
Liaoning Province	**169.74**	13.45%
Coal-fired	**146.27**	8.98%
Wind Power	**21.10**	58.98%
Hydro-power	**0.17**	-47.71%
PV	**2.21**	22.15%
Inner Mongolia	**7.75**	0.41%
Wind Power	**7.75**	0.41%

Type/Region	Electricity Sold 2023 1-12	Year-on-Year Change
Hebei Province	**124.00**	10.84%
Coal-fired	**105.13**	5.49%
Wind Power	**6.11**	-6.46%
PV	**12.76**	124.28%
Gansu Province	**131.55**	-10.27%
Coal-fired	**105.90**	-12.99%
Wind Power	**25.65**	3.02%
Ningxia	**0.21**	-8.20%
PV	**0.21**	-8.20%
Beijing	**82.12**	-0.78%
Coal-fired	**5.15**	-36.83%
Combined Cycle	**76.97**	3.16%
Tianjin	**58.71**	9.19%
Coal-fired	**49.30**	11.71%
Combined Cycle	**9.20**	-3.24%
PV	**0.22**	57.03%
Shanxi Province	**92.23**	7.43%
Coal-fired	**54.56**	9.83%
Combined Cycle	**20.53**	-0.73%
Wind Power	**6.97**	11.27%
PV	**10.18**	10.23%
Shandong Province	**804.38**	-2.80%
Coal-fired	**761.12**	-4.04%
Wind Power	**23.84**	16.12%
PV	**15.35**	52.32%
Biomass power	**4.07**	7.75%
Henan Province	**231.91**	1.06%
Coal-fired	**189.42**	-1.52%
Combined Cycle	**1.53**	13.85%
Wind Power	**34.76**	-2.25%
PV	**6.20**	2,524.07%

Type/Region	Electricity Sold 2023 1-12	Year-on-Year Change
Jiangsu Province	**427.61**	4.31%
Coal-fired	**317.88**	6.84%
Combined Cycle	**54.53**	-12.28%
Wind Power	**47.22**	0.29%
PV	**7.97**	154.02%
Shanghai	**202.39**	8.83%
Coal-fired	**187.98**	9.18%
Combined Cycle	**13.96**	4.01%
PV	**0.45**	22.93%
Chongqing City	**144.72**	0.42%
Coal-fired	**113.32**	2.36%
Combined Cycle	**26.55**	-8.70%
Wind Power	**4.82**	11.03%
PV	**0.03**	-
Zhejiang Province	**339.19**	5.62%
Coal-fired	**305.57**	4.10%
Combined Cycle	**8.24**	-17.38%
Wind Power	**22.54**	46.50%
PV	**2.85**	26.02%
Hubei province	**161.02**	-8.49%
Coal-fired	**141.83**	-13.21%
Wind Power	**7.32**	0.09%
Hydro-power	**2.81**	45.09%
PV	**9.05**	176.74%
Hunan Province	**100.83**	-3.26%
Coal-fired	**87.29**	-6.54%
Wind Power	**8.21**	14.68%
Hydro-power	**2.52**	-6.01%
PV	**2.82**	181.91%

Type/Region	Electricity Sold 2023 1-12	Year-on-Year Change
Jiangxi Province	**293.66**	0.99%
Coal-fired	**274.04**	-0.19%
Wind Power	**9.57**	-2.72%
PV	**10.05**	57.12%
Anhui Province	**78.82**	10.39%
Coal-fired	**58.58**	1.51%
Wind Power	**11.07**	5.44%
Hydro-power	**0.74**	-9.90%
PV	**8.43**	255.39%
Fujian Province	**171.08**	16.48%
Coal-fired	**169.15**	15.49%
PV	**1.92**	375.41%
Guangdong Province	**296.24**	5.82%
Coal-fired	**255.64**	6.08%
Combined Cycle	**38.96**	0.86%
Wind Power	**0.07**	–
PV	**1.57**	361.88%
Guangxi	**10.16**	62.65%
Combined Cycle	**3.24**	5.53%
Wind Power	**6.80**	113.62%
PV	**0.13**	129,667.00%
Yunnan Province	**149.40**	89.99%
Coal-fired	**141.73**	90.96%
Wind Power	**6.40**	48.03%
Hydro-power	**–**	-100.00%
PV	**1.27**	–
Guizhou Province	**9.70**	21.22%
Wind Power	**1.96**	14.57%
PV	**7.74**	23.03%

Type/Region	Electricity Sold 2023 1-12	Year-on-Year Change
Hainan Province	**131.43**	33.05%
Coal-fired	**104.06**	10.33%
Combined Cycle	**23.37**	2,213.01%
Wind Power	**0.92**	-11.18%
Hydro-power	**0.74**	-42.25%
PV	**2.35**	104.79%
Total	**4,478.56**	5.33%

The main reason for the increase in the Company's electricity sales volume: In 2023, the growth of electricity consumption in the whole society led to the year-on-year increase in the Company's electricity generation. Influenced by the reduction of hydropower generation nationwide, sustained high temperature and cold waves in a wide range, the Company's thermal power generation increased year on year for playing a key role in supporting and ensuring an adequate electricity supply to cater for peak demands in summer and winter months. The Company accelerated the development of green and low-carbon, and the installed capacity and power generation of wind power and PV increased rapidly year on year.

For the year ended 31 December 2023, the accumulated power generation of Tuas Power, the Company's wholly owned subsidiary in Singapore, accounted for a market share of 20.4%, representing a decrease of 1.9 percentage points from the same period of last year.

In respect of tariff, the Company's domestic average tariff (inclusive of taxes) for the year ended 31 December 2023 was RMB508.74 per MWh, decreased by 0.23% from last year. For the operation in Singapore, the average tariff for the year ended 31 December 2023 was RMB1,371.73 per MWh, representing an increase by 45.31% from the same period of last year.

In respect of fuel costs, due to the decrease in fuel purchase prices, the Company's fuel cost per unit of power sold by domestic coal-fired power plants for the year ended 31 December 2023 decreased by 12.38% to RMB326.43 per MWh from the same period of last year.

Influenced by the forgoing factors, for the year ended 31 December 2023, the Company and its subsidiaries recorded a consolidated operating revenue of RMB254.397 billion, representing an increase of 3.11% from RMB246.725 billion of last year, and the operating costs and expenses of RMB234.201 billion, representing a decrease of 5.43% from RMB247.657 billion of last year, and the net profit before income tax was RMB12.477 billion, representing a decrease of loss of RMB23.291 billion from the net loss before income tax of RMB10.814 billion of last year.

2. Comparative analysis of operating results

2.1 Operating revenue and tax and levies on operations

Operating revenue mainly consists of revenue from electricity sold. For the year ended 31 December 2023, the consolidated operating revenue of the Company and its subsidiaries amounted to RMB254.397 billion, representing an increase of 3.11% from RMB246.725 billion for the year ended 31 December 2022. The operating revenue from domestic operations increased by RMB10.722 billion over the same period of last year, mainly due to the increase in domestic electricity consumption over the same period of last year, including an increase of RMB10.230 billion due to the increase of electricity sold and a decrease of RMB0.468 billion due to the decrease of tariff. The operating revenue from domestic operations of the Company generated from the newly acquired entities and newly operated generating units was RMB9.066 billion, and the operating revenue from domestic operations of the Company generated from the existing generating units increased by RMB1.656 billion. The operating revenue from the operations in Singapore decreased by RMB1.383 billion over the same period of last year, representing a decrease of 4.86%. The operating revenue from the operations of Pakistan decreased by RMB1.667 billion, representing a decrease of 29.10% over the same period of last year. The decrease in operating revenue from oversea operations was mainly due to the decrease of the volume of electricity sold.

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 2023, the tax and levies on operations of the Company and its subsidiaries were RMB1.635 billion, representing an increase of RMB0.193 billion from RMB1.442 billion for the same period of last year, mainly due to the increase of the value-added tax surcharge based on the increasing value-added tax paid by domestic operations as a result of the increase of revenue and the decrease of fuel cost.

2.2 *Operating expenses*

For the year ended 31 December 2023, the total operating expenses of the Company and its subsidiaries was RMB234.201 billion, representing a decrease of 5.43% from the same period of last year. The operating expenses in domestic operations decreased by RMB7.274 billion, or 3.36%, from the same period of last year, of which the newly acquired entities and the new generating units accounted for RMB7.783 billion; the costs attributable to the existing entities decreased by RMB15.057 billion, which was primarily attributable to the decrease in the fuel cost led by the sharp decrease in domestic coal price over the same period of last year.

The operating expenses from the operations in Singapore decreased by RMB3.892 billion, or 14.79%, from the same period of last year, mainly due to the decrease of operating cost of purchasing electricity. The operating expenses from the operations in Pakistan decreased by RMB2.290 billion, mainly due to the decrease in fuel cost caused by the decrease in electricity sales of Pakistan business.

2.2.1 *Fuel costs*

Fuel costs accounted for the majority of the operating expenses for the Company and its subsidiaries. For the year ended 31 December 2023, fuel costs decreased by 8.17% to RMB156.569 billion from RMB170.507 billion for the year ended 31 December 2022. The fuel costs from domestic operations decreased by RMB14.201 billion, which was mainly attributable by the sharp decrease in domestic coal price. The fuel costs of the newly acquired entities and new generating units were RMB4.108 billion and the fuel costs of the existing generating units decreased by RMB18.309 billion from same period of last year. Fuel costs in Singapore increased by RMB0.264 billion from the same period of last year, mainly due to the combined impact of decrease of natural gas prices and the rise in the SGD/RMB exchange rate. The fuel cost per unit of power sold by the Company's domestic power plants decreased by 12.38% to RMB326.43/MWh in 2023 from RMB372.56/MWh in 2022.

2.2.2 *Maintenance expenses*

For the year ended 31 December 2023, the total maintenance expenses of the Company and its subsidiaries amounted to RMB4.457 billion, which was approximately the same as the last year with RMB4.485 billion.

2.2.3 Depreciation

For the year ended 31 December 2023, depreciation expenses of the Company and its subsidiaries increased by RMB1.112 billion to RMB25.492 billion from RMB24.380 billion for the year ended 31 December 2022. The depreciation expenses of domestic operations increased by RMB1.143 billion compared to the same period of last year, of which the depreciation costs incurred by the newly acquired entities and new generating units was RMB1.688 billion, the depreciation expense of existing units decreased by RMB545 million. Depreciation expenses of Singapore business were basically the same year on year.

2.2.4 Labor

Labor costs 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 2023, the labor costs of the Company and its subsidiaries increased by RMB1.614 billion to RMB17.762 billion from RMB16.148 billion for the year ended 31 December 2022, which was mainly due to the increase in discretionary bonuses paid with the growth of corporate efficiency and the year-on-year increase in total wages, as well as the increase in the payment base of social security and provident fund, the related expenses thus increased.

2.2.5 *Other operating expenses (including electricity power purchase costs and service fees paid to HIPDC)*

Other operating expenses include environmental protection expenses, insurance premiums, office expenses, amortization, Tuas Power's electricity power purchase costs, impairment losses, government subsidies and net gains or losses on disposal of properties, plant and equipment. For the year ended 31 December 2023, other operating expenses of the Company and its subsidiaries was RMB29.920 billion, representing a decrease of RMB2.217 billion from RMB32.137 billion for the year ended 31 December 2022. Other operating expenses from the Company's domestic operations increased by RMB4.363 billion, mainly due to the increase in safety production expense in accordance with national regulations and the increase in operating expenses due to the increase in installed capacity over the same period of last year. Other operating expenses of the operations in Singapore decreased by RMB4.301 billion over the same period of last year, mainly due to the decrease of operating cost of purchasing electricity as a result of the decrease of electricity procurement costs of the retail electricity business. Other operating expenses of the operations in Pakistan decreased by RMB2.279 billion over the same period of last year, mainly due to the decrease of fuel costs led by the decrease in electricity sales.

2.3 Financial expenses

For the year ended 31 December 2023, the interest expense of the Company and its subsidiaries was RMB9.375 billion, representing a decrease of RMB0.451 billion from RMB9.826 billion for the year ended 31 December 2022, which was mainly due to the decrease in interest expenses amounting to RMB1.024 billion. The interest expense from the Company's domestic operations decreased by RMB1.251 billion, mainly due to the decrease in the cost of interest-bearing debt funds over the same period of last year. The interest expense from the newly acquired entities and new generating units was RMB633 million and those incurred by the domestic existing entities decreased by RMB1.884 billion. The interest expense of Singapore operations decreased by RMB18 million compared to the same period of last year. Interest expense of Pakistan operations increased by RMB245 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 2023, the share of profits less losses of associates and joint ventures of the Company and its subsidiaries in 2023 was RMB854 million, representing a decrease of RMB188 million from RMB1,042 million for the year ended 31 December 2022, mainly due to the decrease in net profit of associates and joint ventures such as Times Shipping Co. Ltd.

2.4.2 *Other investment gain*

Other investment gain of the Company and its subsidiaries in 2023 was RMB1.930 billion, an increase of RMB1.925 billion over 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 a gain of RMB1.961 billion recorded in other investment gain.

2.5 ***Income tax expenses***

For the year ended 31 December 2023, the Company and its subsidiaries recognized income tax expense of RMB3.708 billion, representing an increase of expense of RMB3.549 billion from RMB159 million for the year ended 31 December 2022. The income tax expenses from domestic operation increased by RMB3.075 billion, mainly due to the turning losses into profits of the Company's domestic business, as well as the reversal of deferred tax assets recognized for losses in previous years.The income tax expense for the operations in Singapore increased by RMB421 million, mainly due to the substantial profit growth of Singapore business over the same period of last year. The income tax expenses for the operations in Pakistan increased by RMB53 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 2023, the Company and its subsidiaries achieved a net profit of RMB8.769 billion, representing an increase of profit of RMB19.742 billion, from a net loss of RMB10.973 billion for the year ended 31 December 2022.

The net profit attributable to equity holders of the Company was RMB8.357 billion, representing an increase of RMB16.384 billion over last year. For the influencing factors, such as decrease in unit fuel costs, increase in electricity sales of the Company's domestic business, as well as the substantial increase in profit realised from the Company's Singapore operation, the annual performance of the Company turned losses into profits. The net profit attributable to equity holders of the Company from the domestic operations was RMB4.537 billion, representing an increase of RMB14.344 billion over last year. The net profit attributable to equity holders of the Company from the operations in Singapore was RMB3.605 billion, representing an increase of RMB2.057 billion as compared to the same period last year, mainly due to the continuous strengthening of safety production management, maintaining safe and stable operation of units, dynamically adjusting market competition strategies, optimizing fuel supply structure and portfolio, and actively expanding the retail market of electricity, marginal contribution of electricity sales of Singapore business units increased as a result. The net profit attributable to equity holders of the Company from the operations in Pakistan was RMB215 million, representing a decrease of RMB18 million.

The Company's recorded profit from its non-controlling interests of RMB412 million for the year ended 31 December 2023, representing an increase of profit amounting to RMB3.358 billion as compared to the loss of RMB2.946 billion for the year ended 31 December 2022, mainly due to the increase in net profit of the Company's non-wholly owned subsidiaries.

2.7 Comparison of financial position

2.7.1 Comparison of asset items

As of 31 December 2023, the total assets of the Company and its subsidiaries were RMB550.316 billion, increased by 7.44% from RMB512.222 billion as of 31 December 2022; total assets of the domestic operations increased by RMB40.356 billion to RMB508.144 billion, including a net increase of RMB32.805 billion in fixed assets, 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 2023, the total assets of the operations in Singapore were RMB28.782 billion, representing a decrease of RMB0.815 billion from the year end of 2022. Non-current assets increased by RMB0.419 billion to RMB24.553 billion compared with the year end of 2022. Current assets decreased by RMB1.234 billion to RMB4.229 billion compared with the year end of 2022. The total assets of the operations in Pakistan were RMB13.390 billion, representing a decrease of RMB1.447 billion compared with the year end of 2022. Non-current assets amounted to RMB7.359 billion, a decrease of RMB0.801 billion as compared with the end of last year. Current assets amounted to RMB6.031 billion, a decrease of RMB0.646 billion as compared with the end of last year.

2.7.2 Comparison of liability items

As at 31 December 2023, the total liabilities of the Company and its subsidiaries were RMB370.962 billion, representing a decrease of RMB5.944 billion from RMB376.906 billion as at 31 December 2022.

As at 31 December 2023, interest-bearing debts of the Company and its subsidiaries amounted to RMB294.630 billion. The interest-bearing debts consist of long-term loans (including those maturing within a year), long-term bonds (including those maturing within a year), short-term loans, short-term bonds and lease liabilities (including those maturing within a year).

As at 31 December 2023, the total liabilities of the operations in Singapore were RMB13.912 billion, representing a decrease of RMB3.294 billion from RMB17.206 billion as at 31 December 2022. As at 31 December 2023, the total liabilities of the operations in Pakistan were RMB9.774 billion, representing a decrease of RMB1.311 billion from RMB11.085 billion as of 31 December 2022.

2.7.3 Comparison of equity items

The total equity attributable to the equity holders of the Company increased by RMB23.099 billion as of 31 December 2023 as compared to 1 January 2023, mainly due to combined impact of the net increase in the scale of energy supply bonds (recorded as other equity instruments) of RMB17.000 billion, the net profit attributable to equity holders of the Company of RMB8.357 billion in the current year, a decrease of RMB2.374 billion arising from the declaration of interests for other equity instruments and an increase of RMB0.116 billion due to other reasons. Non-controlling interests increased by RMB20.940 billion as compared to 1 January 2023, mainly due to the issuance of equity-type REITs financing products to absorb RMB19.151 billion from non-controlling interests.

2.7.4 Major financial position ratios

	2023	2022
Current ratio	**0.55**	0.51
Quick ratio	**0.48**	0.43
Ratio of liability to equity	**2.67**	3.26
Multiples of interest earned	**2.22**	-0.08

Formula of the financial ratios:

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

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

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

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

The current ratio and quick ratio as of 31 December 2023 increased, mainly due to the decrease of current liabilities compared to 1 January 2023. The decrease of current liabilities mainly due to the decline of short-term loans. The ratio of liabilities to equity as of 31 December 2023 decreased slightly, mainly due to the comprehensive impacts of the Company's operating gains, the issuance of the energy supply bonds (other equity instruments) for energy conservation and supply and the equity financing through the issuing of equity-type REITs financing products. The multiples of interest earned increased over last year, mainly due to the Company turned losses into profits as compared with last year.

B. LIQUIDITY AND CASH RESOURCES

1. Liquidity

	2023	2022	Change
	RMB billion	*RMB billion*	*%*
Net cash generated in operating activities	**45.497**	32.520	39.90
Net cash used in investing activities	**-54.529**	-39.830	36.90
Net cash generated in financing activities	**8.720**	7.831	11.35
Currency exchange impact	**-0.054**	0.441	112.24
Net increase in cash and cash equivalents	**-0.366**	0.962	-138.05
Cash and cash equivalents as at the beginning of the year	**16.517**	15.555	6.18
Cash and cash equivalents as at the end of the year	**16.151**	16.517	-2.22

For the year ended 31 December 2023, net cash generated in operating activities of the Company and its subsidiaries was RMB45.497 billion, representing an increase of 39.90% from last year, mainly due to the decrease in fuel procurement expenditure, the increase in electricity sales revenue, and decrease in renewable energy subsidies and VAT rebates received as compared to that of the same period of last year. The net cash generated in operating activities in Singapore was RMB5.757 billion. The net cash generated in operating activities in Pakistan was RMB2.957 billion. The net cash used in investing activities was RMB54.529 billion for the year ended 31 December 2023, representing an increase of 36.90% from last year, mainly due to the increase in infrastructure expenditure of new energy and other projects. The net cash generated in financing activities was RMB8.720 billion for the year ended 31 December 2023, representing a increase of 11.35% as compared with last year, mainly due to increase in net financing amount in the current period to support capital expenditure such as the Company's new energy development. As of 31 December 2023, the cash and cash equivalents of the Company and its subsidiaries denominated in RMB, Pakistan Rupee, Singapore dollar, U.S. dollar and other currencies were RMB13.569 billion, RMB1.667 billion, RMB0.842 billion, RMB34 million, and RMB39 million, respectively.

As of 31 December 2023, net current liabilities of the Company and its subsidiaries were approximately RMB73.255 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 2023 was RMB60.202 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.

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

(Unit: RMB 100 million)

Projects	Capital expenditure in 2023	Capital expenditure plan for 2024	Cash resources arrangements	Financing costs and note on use
Thermal power projects	51.99	61.65	Including internal capital and bank loans	Within the floating range of benchmark lending interest rates of PBOC
Hydropower projects	0.12	0	Including internal capital and bank loans	Within the floating range of benchmark lending interest rates of PBOC
Wind power projects	234.76	295.44	Including internal capital and bank loans	Within the floating range of benchmark lending interest rates of PBOC
Coal mining projects	10.19	14.92	Including internal capital and bank loans	Within the floating range of benchmark lending interest rates of PBOC
Photovoltaic power projects	255.45	353.81	Including internal capital and bank loans	Within the floating range of benchmark lending interest rates of PBOC
Port	0	0	NA	NA
Technology renovation etc.	49.51	75.71	Including internal capital and bank loans	Within the floating range of benchmark lending interest rates of PBOC

2.2 Cash resources and anticipated financing costs

Good operating results and sound credit status provide the Company with strong financing capabilities. As of 31 December 2023, the unutilized banking facilities available to the Company and its subsidiaries amounted over RMB310.0 billion, which are granted by commercial banks such as Bank of China, China Construction Bank, Industrial and Commercial Bank of China and other commercial banks.

In 2023, the Company issued a total of 25 unsecured ultra-short-term bonds totalling RMB65.0 billion, with coupon rates ranging from 1.79% to 2.33%. The bonds are denominated in RMB and issued at par value.

In 2023, the Company and its subsidiaries did not issue any long-term bonds.

As of 31 December 2023, short-term loans of the Company and its subsidiaries were RMB57.233 billion (2022: RMB83.573 billion). Loans from banks were charged at interest rates ranging from 1.06% to 3.55% per annum (2022: RMB1.24% to 18.01%).

As of 31 December 2023, short-term bonds payable by the Company and its subsidiaries were RMB6.110 billion (2022: RMB6.313 billion).

As of 31 December 2023, the Company and its subsidiaries' long-term loans (including long-term loans due within one year) totaled RMB183.424 billion (2022: RMB170.808 billion), including RMB loans of RMB172.014 billion (2022: RMB154.611 billion), USD loans of RMB9.758 billion equivalent (2022: RMB10.409 billion equivalent), EUR loans of RMB2 million equivalent (2022: RMB18 million equivalent), SGD loans of RMB1.554 billion equivalent (2022: RMB5.662 billion equivalent), JPY loans of RMB97 million equivalent (2022: RMB107 million equivalent). Among them, SGD loans are floating rate loans, and EUR loans and JPY loans are fixed interest rate loans. For the year ended 31 December 2023, the annual interest rate of long-term loans is 0.75% to 7.59% per annum (2022: 0.75% to 6.75%).

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 reports 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 2023 (to be approved by the general meeting of shareholders), it is expected that the Company will pay a dividend of RMB0.20 per ordinary share (inclusive of tax) and a total cash dividend of RMB3.140 billion.

2.4 Maturity profile of interest-bearing debts

Maturity Profile *(RMB100 million)*	**2024**	**2025**	**2026**	**2027**	**2028**
Principal amount planned for repayment	973.34	425.55	355.57	138.50	170.25
Interest amount planned for repayment	78.58	57.92	46.33	36.98	32.65
Total	1,051.92	483.47	401.90	175.48	202.90

Note: The amount of principle to be paid in 2024 is relatively large because this includes expected repayment of short-term loans and short-term bonds.

C. LONG-TERM DEVELOPMENT STRATEGY AND PLANNING

The Company fully implements the new development philosophy of "innovation, coordination, green, openness and sharing," adheres to the focus on quality and efficiency, integrates energy security and green development, and comprehensively promotes high-quality development, and strives to increase the proportion of low-carbon and clean energy installed capacity to about 45% by the end of the 14th Five-Year Plan period, and aims to further develop the Company into a well-governed, excellently operated, energy saving and environmental friendly, worldclass listed power generation company with outstanding market value.

The Company adheres to the new energy safety strategy of "Four Revolutions and One Cooperation", promotes the green and low-carbon transformation of energy with the aims of peak carbon emission and carbon neutrality, prioritizes the quality and efficiency. Adhering to the principle of "paying equal attention to centralization and distribution, and giving priority to independent construction", the Company has further built large-scale clean energy production bases with the idea of "Three-types and Three-isations" namely "base-type, clean-type and complementary-type together with intensification, digitalisation and standardisation" in the "Three North" areas, Liaoning, Shandong, Jiangsu, Zhejiang, Guangdong, other coastal areas, and areas with good new energy resources in central China, promotes the leap-forward development of new energy, promotes the optimisation and upgrading of coal-fired power structure, and prefers the opportunities for development of gas-fired power and other clean energy sources for power generation. The Company supports high-quality development with scientific and technological innovation, adheres to the strategy of serving the country, adheres to the major needs of the Company's development, adheres to digital and intelligent development, deepens the ability of independent innovation, and implements scientific and technological demonstration projects. The Company insists on strengthening and improving comprehensive energy services, actively adapting to the transformation of the national energy supply structure, actively developing strategic emerging industries through digitalization, and providing diversified supply and energy services around core industries, adhering to the new development pattern of domestic and international dual circulation, strengthening international cooperation, enhancing the efficient operation of overseas assets, improving the anti-risk capability and profitability of overseas assets. The Company adheres to the guidance of improving efficiency and creating value, consolidates the management foundation, enhances management efficiency, comprehensively improves the management and control level of the Company's modern operation, improves corporate governance, enhances the Company's brand value, and earnestly fulfils its social responsibilities.

D. TREND ANALYSIS

The Central Economic Work Conference (the "**Conference**") emphasized that we should adhere to seeking progress while maintaining stability, promoting stability with progress and establishing the new before abolishing the old in 2024. In terms of the macro policies, the Conference focused on enhancing the consistency of macro-policy orientation. The Conference called for strengthening the proactive fiscal policy to improve quality and efficiency. It was pointed out at the conference that prudent monetary policy should be flexible and appropriate as well as precise and effective. It was pointed out at the conference that we will devote converted efforts to expand domestic demand, stimulate the potential consumption, and increase profitable investment, forming a virtuous circle through mutual promotion of consumption and investment. In 2024, we will focus on promoting high-quality development, highlight and grasp the key points, and persistently increased our efforts in economic week. It was also point out at the conference that we will thoroughly implement the action to deepen and improve the reform of state-owned enterprises, enhance the core function and improve core competitiveness, further accelerate the ecological civilization construction and green and low-carbon development, and actively and properly promote peak carbon emission and carbon neutrality.

In terms of the power supply and demand, according to the analysis and forecast on the situation of the power supply and demand by China Electricity Council, with the considerations such as the domestic and international economic situation and the electrification of the energy consumed by end-user, it is estimated that the electricity consumption of the whole society will have a year-on-year increase of approximately 6% in 2024; the newly installed power generation capacity that put into operation will exceed 300 million kilowatts again, and the total installed new power capacity is expected to exceed the installed coal-fired power capacity for the first time.

In terms of the power market, the National Development and Reform Commission issued the Notice on the Establishing a Coal-fire Power Capacity Tariff Mechanism, which adjusted a single tariff to dual tariff and stated that the fixed cost of coal-fired power companies shall be passed through capacity tariff. With the continuous promotion of electricity spot market, the competition in the electricity grid market will be intensified and the uncertainly of the market will be further increased. Driving by the increase in the proportion of electricity volume trading and the adjustment of the time-of-use electricity price, it is expected that the price in respect of the electricity generated by new energy project will be decreased.

In terms of the carbon market, with the gradual promotion of peak carbon emissions and carbon neutrality, the benchmark value of carbon emissions was lowered in the second performance period of the national carbon market, the quota distribution was greatly tightened, and the costs of carbon emissions performance increased. The quota distribution plan for the third performance period has not yet been released, and it is expected that the costs of carbon emissions performance will gradually increase.

In terms of the coal market, most of the additional domestic coal production capacity has reached full capacity in the past two years and the supervision on safety in major coal-producing bases continued to be tightened, there is limited space for increase in the domestic coal production in 2024. In the international market, due to the termination of China's tax exemption policy for imported coal, the increase of the prices of Mongolian coal and Russian coal may lead to contraction of the quantity of corresponding imported Mongolian coal and Russian coal, while Indonesian coal and Australian coal will remain stable, and the overall increase of international seaborne trade coal will be limited, and the supplementary effect of imported coal in China will be weakened. On the demand side, the overall economic operation of China is expected to continue to pick up in 2024, the proportion of non-fossil energy will continue to increase in 2024, and the growth rate of coal consumption will slow down. Under the policy guarantee, the performance rate of mid-term and long-term contracts for coal will be improved, and the "cornerstone" role of long-term coal associations will be effectively brought into play. In 2024, the pattern of coal supply and demand will be further improved, with overall balance and local tension. The trend of coal price will be generally stable, and the price center will move down, but the decline is limited.

In terms of the capital market, according to the spirit of the Central Economic Work Conference and the quarterly meeting of the Monetary Policy Commission of the People's Bank of China. In 2024, China will insist on the principle of "seeking progress while maintaining stability, promoting stability with progress and establishing the new before abolishing the old", insist on a prudent monetary policy, implement flexible, moderate, accurate and effective requirements, and continue to create a good monetary and financial environment for the stable growth of the real economy.

E. PERFORMANCE OF SIGNIFICANT INVESTMENTS AND THEIR PROSPECTS

As at 31 December 2023, the carrying amount of the Company's investments in associates and joint ventures amounted to RMB22.712 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 Corporation ("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 2023, 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 2023. These investments brought a net profit to the Company of RMB281 million for the year ended 31 December 2023 under IFRSs. This investment is expected to provide steady returns to the Company.

F. EMPLOYEE BENEFITS

As of 31 December 2023, the Company and its subsidiaries had a total of 57,038 employees within and outside the PRC. The Company and its subsidiaries provide employees with competitive remuneration and linked such remuneration to operating results to provide incentives for the employees. Currently, the Company and its subsidiaries do not have any stock or option based incentive plan.

The Company and its subsidiaries provide employees with training programs in management, technology, skills and other areas in accordance with the requirements of the Company's development and position responsibilities, taking into account the characteristics of individual employees, and endeavor to improve the overall quality of the employees.

G. GUARANTEE FOR LOANS AND RESTRICTED ASSETS

As at 31 December 2022, long-term loans of approximately RMB15 million were guaranteed by China Huaneng Group Co., Ltd. ("**Huaneng Group**") and were repaid in total as 31 December 2023.

As at 31 December 2022, the Company provided guarantees for long-term loans of approximately RMB3,109 million of the Company's wholly owned subsidiary Tuas Power which were repaid in total as at 31 December 2023. As at 31 December 2023, the Company provided guarantees for long-term loans of approximately RMB917 million of the Company's domestic subsidiaries (31 December 2022: RMB237 million).

As at 31 December 2023, long-term loans of approximately RMB97 million (31 December 2022: RMB107 million) were guaranteed by Enshi Finance Bureau of Hubei Province.

As at 31 December 2023, long-term loans of approximately RMB92 million (31 December 2022: approximately RMB106 million) were guaranteed by Tangyin County Modern Agricultural Investment Co., Ltd.

As at 31 December 2023, long-term loans of approximately RMB199 million (approximately US$28 million) (31 December 2022: RMB199 million (approximately US$29 million)) were guaranteed by Huaneng Shandong Power Generation Co., Ltd. ("**Shandong Power**").

As at 31 December 2023, long-term loans of approximately RMB6,277 million (31 December 2022: RMB6,766 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 2022: 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 2023, long-term loans of approximately RMB1,135 million (31 December 2022: RMB1,116 million) were guaranteed by Shandong Power and Jining Chengtou at the liability ratios of 50.0% and 50.0% respectively (31 December 2022: Shandong Power and Jining Chengtou at the liability ratios of 50.0% and 50.0% respectively).

As of 31 December 2023, the details of secured loans of the Company and its subsidiaries were as follows:

As at 31 December 2023, short-term loans of RMB423 million (31 December 2022: RMB361 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 2023, short-term loans of RMB223 million (31 December 2022: RMB772 million) were secured by certain equipment with a net book value amounting to approximately RMB474 million (31 December 2022: RMB1,519 million).

As at 31 December 2023, long-term loans of RMB4,675 million (31 December 2022: RMB4,633 million) were secured by certain property, plant and equipment with a net book value amounting to approximately RMB6,543 million (31 December 2022: RMB6,984 million).

As at 31 December 2023, long-term loans of approximately RMB4,218 million were secured by future revenue from the electricity or heat business (31 December 2022: RMB4,838 million). As at 31 December 2022, long-term loans of approximately RMB461 million were secured by equity interests of the Company and its subsidiaries and were repaid in total as at 31 December 2023. As at 31 December 2022, long-term loans of approximately RMB50 million were secured by carbon emission trading rights and were repaid in total as at 31 December 2023.

As of 31 December 2023, the restricted bank deposits of the Company and its subsidiaries were RMB699 million (31 December 2022: RMB658 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 IFRSs.

I. RISK FACTORS

1. Risks relating to the electricity industry and market

(1) In 2024, due to the continuous rebound of the domestic economy, it is expected that the electricity consumption of the whole society will record a year-on-year increase of approximately 6%, the new energy will maintain rapid development, the installed capacity is expected to surpass coal-fired power for the first time, and the role of coal-fired power enterprises in ensuring guaranteed supply and supporting adjustment is more prominent. In extreme weather and demand peak, there may be the risk of power supply shortage in certain areas in individual periods.

(2) The spot market of electricity has been fully rolled out in many provinces and cities, the electricity price mechanism of coal-fired power capacity has been formally implemented, and the market competition has become more intense. Coal-fired power units with low reliability and high coal consumption for power generation are not competitive in the market, and the capacity electricity fees cannot be fully obtained, so there is a risk of income decline.

(3) The trading volume of electricity generated from new energy continued to increase, guaranteed purchase volume of electricity continued to decline and the electricity price of new energy participating in market-oriented transactions will further decline, so the electricity price of new energy transactions in spot market areas will decline even more, and there will be a risk of income decline.

The Company will be committed to strengthening its policy research effort, actively adapt to need of the development of the electricity market as guided by the carbon peak and carbon neutrality goal, accelerate the technological upgrading, transformation and development of coal-fired power units, continue to promote the standard operation of the market, adjust pricing strategies in a timely manner, and make every endeavor to prevent and control risks relating to operations.

2. Risks relating to fuel procurement market

(1) With the recovery of the national macro-economy, the electricity consumption of the whole society will continue to increase. In the peak power consumption period including summer peak, winter peak and extreme weather, there may be intermittent supply shortage in certain areas, thermal power will continue to be relied upon to ensure that energy demands are met, and coal supply is still under great pressure in certain areas.

(2) There is limited room for further growth of domestic coal output. Due to the tax policy on imported coal, the effect of using international market resources to stabilize domestic coal prices will be weakened, and the overall coal price is still relatively high and fluctuates frequently, and the operating pressure of the Company's coal-fired power business is still relatively high.

(3) The proportion of imported coal procurement in coastal areas was relatively large, and the coal supply was greatly affected by the international market, so there was double pressure to ensure supply and control prices.

The Company will closely monitor the changes of the coal market, implement the national policy requirements, give full play to the "cornerstone" role of long-term contracts, and grasp the international coal market situation, and optimise imported coals. The Company will continue to optimise the supply structure, improve the peak supply capacity of units, enhance the adaptability with the new power market. The Company tries to strengthen inventory management, leveraging role of coal storage in off-season or favorable price, and coal consumption in peak season or high price, taking multiple measures to control coal procurement costs.

3. Risks relating to carbon markets

In the second performance period, the quota distribution was greatly tightened, and the cost of carbon emission performance increased. In the third performance period, with the expansion of participants in the carbon market and the possible further tightening of quota distribution, the carbon transaction price will continue to be pushed up, and power generation enterprises will be at the risk of increasing the cost of carbon performance.

The Company will pay close attention to the changes of national carbon market policies, accelerate the upgrading and transformation of energy conservation and emission reduction, strengthen the development of the Chinese Certified Emission Reduction ("**CCER**") project, coordinate and optimise the carbon trading strategies, and strive to complete the carbon emission performance at a lower cost.

4. Environmental protection risk

Based on the current status and the needs of ecological civilization construction, the State is constantly improving and deepening environmental protection policies in key regions including but not limited to Beijing-Tianjin-Hebei, Yangtze River Economic Belt, Pearl River Delta, etc., which may lead to new and more stringent requirements with respect to issues such as water body protection and flue and dust treatment etc. and may increase the environmental protection expenditure of relevant grass-roots enterprises.

The Company strictly implements the national environmental protection policy. All of the coal-fired power plants of the Company completed ultralow emission transformation and achieved operation with ultralow emission, which afforded good adaptability to the fluctuations of internal and external factors such as weather conditions, fuel quality and electric heat load and passed the inspection procedure conducted by the local environmental protection authorities. Meanwhile, the Company actively follows up the concerns of environmental protection authorities, scientifically selects advanced and applicable technical solutions in a cautious manner, and makes positive efforts to upgrade its water-saving and wastewater treatment systems, build closed facilities for coal yards, and improve the recycling and utilisation of coal ash and slag in order to ensure that various environmental risks are addressed and effectively resolved in a timely manner.

5. Power construction risks

In terms of power construction, the Company may face risks such as extreme weather, lack of material and equipment supply, rise in labour cost, multiple "four certificates and one document" processing steps, a long period of time for obtaining land for construction, and difficulties in coordinating grid connection.

The Company will deal with risks and challenges in advance, proactively take various measures, strengthen the organization and coordination, mobilize the initiative of all parties of the construction, and overcome difficulties to ensure that the projects are carried out as scheduled and in an orderly manner.

6. Capital market risks

According to the spirit of the Central Economic Work Conference and the quarterly meeting of the Monetary Policy Commission of the People's Bank of China, in 2024, China will insist on the principle of "seeking progress while maintaining stability, promoting stability with progress and establishing the new before abolishing the old", insist on the prudent monetary policy to be precise and powerful, comprehensively use a variety of monetary policy tools to maintain a reasonable and abundant liquidity, and keep the growth rate of money supply and social financing scale basically matching the nominal economic growth rate, so as to provide stronger support for the real economy. China will continue to increase support for key areas and weak links of the national economy such as green development and scientific and technological innovation.

In 2024, the Company will focus on the improvement of operating results, further broaden financing channels and guarantee the security of energy supply and the capital demand for green and low-carbon transformation. The Company will also pay close attention to the changes in domestic and overseas capital market, make good and full use of green financing policies to reduce interest rates fluctuation risks, make efforts to control financing costs, optimize debt maturity structure, prevent capital risks and realize cost reduction and efficiency improvement.

STRUCTURE OF SHARE CAPITAL

As at 31 December 2023, 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 of the Company. In respect of foreign shares, 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, representing 3.01% and 0.84% of the total issued share capital of the Company, respectively. 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 held 9,994,199 shares through its subsidiary, China Huaneng Finance Corporation Limited, representing 0.06% of the total issued share capital of the Company. Other domestic shareholders held a total of 4,365,929,053 shares, representing 27.81% of the total issued share capital.

DIVIDENDS

The Company has been paying dividends to shareholders since 1998, with an accumulated dividend of RMB62.687 billion paid.

The Company's articles of association provided for its cash dividend policy 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 accounts.

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 the PRC GAAP and the IFRSs.

The Company's dividend distribution proposal for 2023: a cash dividend of RMB0.20 (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 final dividend on or before 31 August 2024 upon after the distribution plan has been approved at the annual general meeting of the Company.

TAXATION ON RECEIPT OF THE PROPOSED 2023 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)（《國家稅務總局關於發佈<非居民納稅人享受協定待遇管理辦法>的公告》(國家稅務總局公告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 2023 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 organizations 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.

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 enpterprises 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 of convening the 2023 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 2023 annual general meeting and the entitlement to the final dividend, the Company will announce such details in the notice of the 2023 annual general meeting upon confirmation thereof. Such notice is expected to be issued to shareholders in late April or May 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 2023 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), Coal Sales Branch Company of Huaneng Inner Mongolia East Energy Co., Ltd. (Huaneng Group holds 100% of its equity), Huayang New Material Technology Co., Ltd. and Gansu Huating Coal-fired Power Co., Ltd. (Huaneng Group holds about 42% of its equity), respectively. The total purchase from them amounted to approximately RMB81.5 billion, representing approximately 39% of the total purchase of the year. The largest supplier was China Huaneng Group Fuel Co., Ltd., the purchase from which amounted to RMB36.96 billion, representing approximately 18% of the total purchase of the year.

As a domestic power producer, the Company sells the electricity generated by its power plants mainly through local grid operators. The five largest customers of the Company and its subsidiaries for 2023 were State Grid Shandong Electric Power Company, State Grid Jiangsu Electric Power Company, State Grid Zhejiang Electric Power Company, China Southern Power Grid Guangdong Power Grid Co., Ltd. and State Grid Jiangxi Electric Power Company. The total amount of sales of power to those five largest customers was approximately RMB100.462 billion, representing approximately 39.49% of the total sales of power for the year. The largest customers was State Grid Shandong Electric Power Company, and the amount of sale to it was RMB36.749 billion, representing approximately 14.45% 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 to the best knowledge of the Board) had any interest in the five largest suppliers and customers of the Company mentioned above in 2023.

BUSINESS COMPETITION WITH CONTROLLING SHAREHOLDERS

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 home 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 other 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 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), 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 items (1) and (4) above are long term undertaking and are being currently performed. The Items (2) and (3) are undertakings with terms and condition and have been currently performed.

Currently, the Company has 15 Directors and only 5 of them have 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 in the relevant resolutions. Therefore, the Company operates independently of Huaneng Group and conducts its business in its own interest.

PURCHASE, SALE OR REDEMPTION OF SHARES OF THE COMPANY

The Company and its subsidiaries did not sell, purchase or redeem any shares or other securities of the Company in 2023.

DIRECTORS OF THE COMPANY

The Directors of the Company 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, Chief Accountant	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

Name of Departured Director	Position	Date of appointment
Zhao Keyu	Chairman, executive Director	5 March 2020
Huang Jian	Non-executive Director	27 August 2008
Lu Fei	Non-executive Director	16 June 2020
Teng Yu	Non-executive Director	16 June 2020
Mi Dabin	Non-executive Director	18 September 2014
Cheng Heng	Non-executive Director	13 June 2017
Lin Chong	Non-executive Director	13 June 2017
Xu Mengzhou	Independent non-executive Director	23 June 2016
Liu Jizhen	Independent non-executive Director	13 June 2017
Xu Haifeng	Independent non-executive Director	13 June 2017
Zhang Xianzhi	Independent non-executive Director	13 June 2017

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. The standard of such guidelines is no less exacting than those set out in the Model Code for Securities Transactions by Directors of Listed Issuers as set out in Appendix C3 to the Listing Rules. Enquiries have been made with all Directors and Supervisors and all of them confirmed that they have complied with the code throughout 2023.

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

For the year ended 31 December 2023, none of the Directors, Chief Executives, 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 Securities Transactions by Directors of Listed Issuers.

For the year ended 31 December 2023, 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).

DIRECTORS' AND SUPERVISORS' INTEREST IN CONTRACTS AND SERVICE CONTRACTS

Save for the service contracts mentioned below, as at the end of 2023, 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 and every 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.

INDEPENDENT NON-EXECUTIVE 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. Dangying has signed a confirmation letter on the independence of independent non-executive director for 2023 on 19 March 2024 and the Company considers them to be independent.

PUBLIC FLOAT

As at the date of this announcement, the Company has maintained the prescribed public float under the Listing Rules and as agreed with the Hong Kong Stock Exchange, based on the information that is publicly available to the Company and within the knowledge of the Directors.

SHAREHOLDINGS OF MAJOR SHAREHOLDERS

The following table sets out the shareholdings of the top ten shareholders of the Company as at 31 December 2023:

Name of shareholder	Number of shares held at the year ended 31 December 2023	Percentage of shareholding
Huaneng International Power Development Corporation	5,066,662,118	32.28%
HKSCC Nominees Limited	4,202,840,330	26.77%
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%
Dalian City Investment Holding Group Co., Ltd.	301,500,000	1.92%
Jiangsu Guoxin Investment (Group) Limited	258,452,600	1.65%
Liaoning Energy Investment (Group) Limited	244,205,000	1.56%
Hong Kong Securities Clearing Limited	160,166,808	1.02%

REMUNERATION POLICY

The Company unceasingly improves its remuneration and distribution system and, in accordance with the overall development strategy of the Company, has formulated a set of remuneration management rules. Employees' salaries are determined by reference to the job positions they hold and calculated based on their job performance. Giving consideration to both efficiency and fairness, the Company creates a methodic and effective incentive mechanism by linking the employees' remuneration with their personal performance and the business performance of the Company as well. The remuneration of the Directors, Supervisors and senior management of the Company mainly consists of the following:

(1) Salaries and allowances

The basic salary is mainly set after an evaluation of the job position and a factor analysis, and with reference to the salary level of the relevant position in the labor market. It accounts for about 20% of the total remuneration.

(2) Discretionary bonus

Discretionary bonuses, which are determined primarily on the basis of the Company's operating results and the performance of directors, supervisors and senior management, account for approximately 65% of the total remuneration.

(3) Payments on pension, etc.

Contributions for various pension schemes such as endowment insurance, corporate annuity and housing fund established by the Company for the Directors, Supervisors and senior management, which accounts for about 15% of the total remuneration.

According to the resolution at the general meeting, the Company paid each independent non-executive Director a subsidy amounting to RMB0.3 million (inclusive of tax) in 2023. 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. Besides these, the Company does not grant the independent non-executive Directors any other benefit.

For the year ended 31 December 2023, the remuneration of the members of the senior management of the Group by scope are set below:

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

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.

STAFF MEDICAL INSURANCE SCHEME

According to the requirements as prescribed by the State and the local governments, the Company and its subsidiaries have joined medical insurance schemes for their employees.

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 paid contributions according to the contracted 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. The contributions payable from time to time will be recorded as expenses for the period and capital construction expenditure during the year they are made and accounted for as labor cost.

During the financial year ended 31 December 2023, there were no forfeited contributions to the retirement schemes that the Group could utilize to reduce the contributions payable in future years. Accordingly, no forfeited contributions were utilized during the financial year and no forfeited contributions were available as at 31 December 2023 to reduce the level of future contributions to be made by the Group to the retirement schemes.

GENERAL MEETINGS

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

1. The Company's 2022 annual general meeting was held on 20 June 2023. The resolutions passed at the meeting were published in China Securities Journal and Shanghai Securities News on 21 June 2023.

2. The Company's 2023 first extraordinary general meeting was held on 5 December 2023. The resolutions passed at the meeting were published in China Securities Journal and Shanghai Securities News on 6 December 2023.

CHANGES IN INFORMATION OF DIRECTORS AND SUPERVISORS DURING THE REPORTING PERIOD

1. On 29 August 2023, Mr. Wang Kui was re-designated from the non-executive Director to the executive Director of the tenth session of the Board of the Company and was appointed as the Chairman of the tenth session of the Board of the Company, the chairman of the Strategy Committee and a member of the Nomination Committee of the Board of the Company. Due to work reason, Mr. Zhao Keyu resigned from his position as the executive Director, the Chairman of the tenth session of the Board of the Company, the chairman of the Strategy Committee and a member of the Nomination Committee of the Board with effect from 29 August 2023. For details, please refer to the announcement of the Company dated 30 August 2023.

2. At the 2023 first extraordinary general meeting of the Company held on 5 December 2023, Mr. Wang Kui, Mr. Wang Zhijie, Mr. Huang Lixin were re-elected or appointed as the executive Directors of the eleventh session of the Board of the Company, Mr. Du Daming, Mr. Zhou Yi, Mr. Li Lailong, Mr. Cao Xin, Mr. Li Haifeng, Mr. Ding Xuchun and Mr. Wang Jianfeng were re-elected or appointed as the non-executive Directors of the eleventh session of the Board of the Company, and Mr. Xia Qing, Mr. He Qiang, Ms. Zhang Liying, Mr. Zhang Shouwen and Ms. Dang Ying were re-elected or appointed as independent non-executive Directors of the eleventh session of the Board of the Company, with a term commencing from the conclusion of the 2023 first extraordinary general meeting until expiry of the eleventh session of the Board of the Company. For details, please refer to the circular of the Company dated 17 November 2023 and the announcement of the Company dated 6 December 2023.

3. On 5 December 2023, as elected by the Board, Mr. Wang Kui was appointed as the Chairman of the eleventh session of the Board of the Company and Mr. Wang Zhijie was appointed as the Vice Chairman of the eleventh session of the Board of the Company. In addition, Mr. Wang Kui, Mr. Wang Zhijie, Mr. Huang Lixin, Mr. Du Daming, Mr. Li Lailong, Mr. Xia Qing and Ms. Zhang Liying were appointed as members of the Strategy Committee, Mr. Xia Qing, Mr. He Qiang, Ms. Zhang Liying, Mr. Zhang Shouwen and Ms. Dang Ying were appointed as members of the Audit Committee, Mr. Huang Lixin, Mr. Cao Xin, Mr. Wang Jianfeng, Mr. Xia Qing, Mr. He Qiang, Mr. Zhang Shouwen and Ms. Dang Ying were appointed as members of the Nomination Committee, and Mr. Wang Zhijie, Mr. Li Haifeng, Mr. Ding Xuchun, Mr. He Qiang, Ms. Zhang Liying, Mr. Zhang Shouwen and Ms. Dang Ying were appointed as members of the Remuneration and Appraisal Committee at the meeting of the Board. For details, please refer to the announcement of the Company dated 6 December 2023.

4. On 5 December 2023, due to expiry of the terms of office, Mr. Huang Jian, Mr. Lu Fei, Mr. Teng Yu, Mr. Mi Dabin, Mr. Cheng Heng and Mr. Lin Chong ceased to be non-executive Directors of the tenth session of the Board of the Company and Mr. Xu Mengzhou, Mr. Liu Jizhen, Mr. Xu Haifeng and Mr. Zhang Xianzhi ceased to be independent non-executive Directors of the tenth session of the Board of the Company. For details, please refer to the circular of the Company dated 17 November 2023.

5. The Company re-elected or appointed Mr. Cao Shiguang, Ms. Kou Yaozhou, Mr. Xia Aidong and Mr. Song Taiji as Supervisors of the eleventh session of the Supervisory Committee of the Company at the 2023 first extraordinary general meeting held on 5 December 2023, with a term commencing from the conclusion of the 2023 first extraordinary general meeting until expiry of the eleventh session of the Supervisory Committee of the Company. On the same day, as elected by the employee representative congress, Mr. Zhu Tong and Mr. Wang Yu were appointed as employee representative Supervisors of the eleventh session of the Supervisory Committee of the Company, with a term ending on the expiry of the eleventh session of the Supervisory Committee of the Company. For details, please refer to the circular of the Company dated 17 November 2023 and/or the announcement of the Company dated 6 December 2023.

6. On 5 December 2023, as elected by the meeting of the Supervisory Committee, Mr. Cao Shiguang was appointed as the Chairman of the eleventh session of the Supervisory Committee of the Company and Ms. Kou Yaozhou was appointed as the Vice Chairman of the eleventh session of the Supervisory Committee of the Company. For details, please refer to the announcement of the Company dated 6 December 2023.

7. On 5 December 2023, Mr. Li Shuqing, Mr. Mu Xuan and Mr. Gu Jianguo ceased to be the Supervisors of the tenth session of the Supervisory Committee of the Company (Mr. Li Shuqing and Mr. Mu Xuan ceased to be the Chairman and Vice Chairman of the Supervisory Committee of the Company, respectively) due to expiry of the terms of office; and Mr. Xu Jianping ceased to be the employee representative Supervisor of tenth session of the Supervisory Committee of the Company due to expiry of his term of office. For details, please refer to the announcement of the Company dated 6 December 2023.

DISCLOSURE OF MAJOR EVENTS

1. Adjustments to the management of the Company: On 16 June 2023, the 32nd meeting of the tenth session of the Board of Directors of the Company approved the appointment of Mr. Huang Lixin as president of the Company. On 26 February 2023, Mr. Chen Shuping resigned from his position as the deputy president of the Company due to age reasons. On 19 June 2023, Mr. Fu Qiyang resigned from his position as the chief economist of the Company due to age reasons. On 29 August 2023, The 34th meeting of the tenth session of the Board of Directors of the Company approved the "Proposal on the Appointment of Deputy President of the Company", and agreed to appoint Mr. Qin Haifeng and Mr. Du Canxun as deputy president of the Company.

2. In 2023, the Company continued to explore and practice capital market financing opportunities, and launched equity-type REITs financing products in accordance with the Company's needs. Five equity-type REITs financing products were completed in the Shanghai Stock Exchange and interbank markets, bringing in a total of RMB19.151 billion of equity capital for the Company, which set a number of records for the industry's first equity-type REITs financing products and the issuance of equity-type REITs financing products at the best interest rates. It has been subscribed by diversified investors, which fully demonstrates the high recognition of the capital market to the Company and makes a positive contribution to the Company's accelerated green and low-carbon transformation.

CODE OF CORPORATE GOVERNANCE PRACTICES

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

The annual report of the Company will contain a corporate governance report prepared in accordance with the requirements under the Listing Rules.

DESIGNATED DEPOSIT

As at 31 December 2023, 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 2023, the expenditure on targeted poverty alleviation in the PRC in the name of the Company totaled RMB14.634 million.

LEGAL PROCEEDINGS

As at 31 December 2023, the Company and its subsidiaries were not involved in any material litigation or arbitration and no material litigation or claim was pending or threatened or made against the Company and its subsidiaries.

ANNUAL GENERAL MEETING AND CLOSURE OF REGISTER

As the Company has yet to confirm the date of the 2023 annual general meeting, the record date(s) for determining the eligibility to attend and vote at the 2023 annual general meeting, the entitlement to the final dividend and the period(s) for closure of register, the Company will upon confirmation thereof announce such details in the notice of the 2023 annual general meeting. Such notice is expected to be issued to shareholders in late April or May 2024.

AUDITORS

As approved at the 2022 first extraordinary general meeting, Ernst & Young Hua Ming LLP was appointed as the Company's domestic auditor for 2023, and Ernst & Young, registered public interest entity auditor, was appointed as the Hong Kong auditor of the Company for 2023. The Company did not change its auditors for the past three years.

PUBLICATION OF RESULTS ON THE WEBSITES OF THE HONG KONG STOCK EXCHANGE AND THE COMPANY

This announcement of 2023 annual results of the Company is published on the Hong Kong Stock Exchange's website (http://www.hkex.com.hk) and the Company's website (http://www.hpi.com.cn). The 2023 annual report of the Company containing all the information required by the Listing Rules will be despatched to the shareholders and made available on the above websites in due course.

REQUIREMENTS UNDER THE ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT GUIDE

In 2023, in accordance with the requirements under the Environmental, Social and Governance Report Guide 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 "2023 Environmental, Social and Governance Report" of the Company, you can contact the Company by sending email to zqb@hpi.com.cn.

The Company has completed the preparation and disclosure of Environmental, Social and Governance Report with high quality for eight consecutive years, and won the "List of ESG Best Practice Cases of Listed Companies in 2023" by China Association of Listed Companies, and was included in the "Yearbook of Chinese Listed Companies (2022)". The Company was successfully selected by the State-owned Assets Supervision and Administration Commission as one of the "ESG-Pioneer 100 Index of Central Enterprises".

DOCUMENTS FOR INSPECTION

The Company's 2023 interim report (A share version and H share version) was published in August 2023 and and the 2023 annual report (A share version and H share version) will be published in April 2024. The Company shall, in compliance of the relevant regulations of the China Securities Regulatory Commission and 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 Centre
99 Queen's Road Central
Hong Kong

Tel: (852) 2851 1038
Fax: (852) 2815 1352

The Company's website: http://www.hpi.com.cn

By Order of the Board
Huaneng Power International, Inc.
Wang Kui
Chairman

As at the date of this announcement, the directors of the Company are:

Wang Kui *(Executive Director)*
Wang Zhijie *(Executive Director)*
Huang Lixin *(Executive Director)*
Du Daming *(Non-executive Director)*
Zhou Yi *(Non-executive Director)*
Li Lailong *(Non-executive Director)*
Cao Xin *(Non-executive Director)*
Li Haifeng *(Non-executive Director)*
Ding Xuchun *(Non-executive Director)*
Wang Jianfeng *(Non-executive Director)*
Xia Qing *(Independent Non-executive Director)*
He Qiang *(Independent Non-executive Director)*
Zhang Liying *(Independent Non-executive Director)*
Zhang Shouwen *(Independent Non-executive Director)*
Dang Ying *(Independent Non-executive Director)*

Beijing, the PRC
20 March 2024

A. FINANCIAL INFORMATION EXTRACTED FROM FINANCIAL STATEMENTS PREPARED UNDER INTERNATIONAL FINANCIAL REPORTING STANDARDS ("IFRSs")

Consolidated Statement of Comprehensive Income

For the year ended 31 December 2023

(Prepared in accordance with IFRSs)

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

		For the year ended 31 December	
	Notes	**2023**	2022
Operating revenue	*3*	**254,396,695**	246,724,789
Tax and levies on operations		**(1,634,847)**	(1,442,438)
Operating expenses, net			
Fuel		**(156,569,158)**	(170,506,913)
Maintenance		**(4,456,767)**	(4,485,105)
Impairment losses on financial and contract assets		**(129,009)**	(48,257)
Depreciation	*12*	**(25,492,280)**	(24,380,204)
Labour		**(17,762,377)**	(16,147,626)
Service fees on transmission and transformer facilities of Huaneng International Power Development Company (the "HIPDC")		**(47,947)**	(47,947)
Purchase of electricity		**(11,978,026)**	(16,357,899)
Others, net	*12*	**(17,765,337)**	(15,683,187)
Total operating expenses		**(234,200,901)**	(247,657,138)
Profit/(loss) from operations		**18,560,947**	(2,374,787)

	Notes	**For the year ended 31 December** **2023**	2022
Interest income		**506,878**	339,258
Financial expenses, net			
Interest expense	*12*	**(8,938,084)**	(9,962,125)
Exchange (loss)/gain and bank charges, net		**(437,167)**	136,151
Total financial expenses, net		**(9,375,251)**	(9,825,974)
Share of profits less losses of associates and joint ventures		**854,156**	1,042,108
Other investment gain	*12*	**1,930,412**	5,438
Profit/(loss) before income tax expense	*12*	**12,477,142**	(10,813,957)
Income tax expense	*4*	**(3,707,733)**	(158,658)
Net Profit/(loss)		**8,769,409**	(10,972,615)

	For the year ended 31 December	
	2023	2022
Other comprehensive loss, net of tax		
Items that will not be reclassified to profit or loss in subsequent periods:		
Fair value changes of other equity instrument investments	**(54,457)**	(12,782)
Share of other comprehensive income of joint ventures and associates	**(29,525)**	32,960
Income tax effect	**13,935**	3,324
Items that may be reclassified subsequently to profit or loss:		
Share of other comprehensive income of joint ventures and associates	**12,147**	25,616
Cash flow hedges:		
Effective portion of changes in fair value of hedging instruments	**(31,759)**	269,361
Reclassification adjustments for income/(losses) included in profit or loss	**162,362**	(1,401,283)
Exchange differences on translation of foreign operations	**(168,052)**	446,350
Income tax effect	**(22,203)**	192,427
Other comprehensive loss, net of tax	**(117,552)**	(444,027)
Total comprehensive income/(loss)	**8,651,857**	(11,416,642)

	Notes	For the year ended 31 December 2023	2022
Net profit/(loss) attributable to:			
– Equity holders of the Company		**8,357,460**	(8,026,233)
– Non-controlling interests		**411,949**	(2,946,382)
		8,769,409	(10,972,615)
Total comprehensive income/(loss) attributable to:			
– Equity holders of the Company		**8,653,954**	(8,114,708)
– Non-controlling interests		**(2,097)**	(3,301,934)
		8,651,857	(11,416,642)
Earnings/(losses) per share attributable to the shareholders of the Company *(expressed in RMB per share)*			
– Basic and diluted	*13*	**0.35**	(0.65)

Consolidated Statement of Financial Position
As at 31 December 2023
(Prepared in accordance with IFRSs)
(Amounts expressed in thousands of RMB)

	Notes	As at 31 December **2023**	2022
ASSETS			
Non-current assets			
Property, plant and equipment		**368,675,819**	336,126,522
Right-of-use assets		**21,024,661**	18,998,833
Investments in associates and joint ventures		**22,712,467**	24,015,630
Investment properties		**626,239**	632,565
Other equity instrument investments		**642,923**	708,912
Power generation licence		**4,312,514**	4,156,846
Mining rights		**1,609,115**	1,611,486
Deferred income tax assets		**4,150,104**	5,632,709
Derivative financial assets		**616**	3,570
Goodwill		**14,509,739**	14,384,909
Other non-current assets	*5*	**21,307,658**	19,227,929
Total non-current assets		**459,571,855**	425,499,911
Current assets			
Inventories		**11,899,339**	12,701,908
Other receivables and assets		**14,750,293**	14,076,384
Accounts and notes receivable	*6*	**47,140,674**	42,654,332
Contract assets		**44,583**	68,738
Derivative financial assets		**59,411**	44,925
Bank balances and cash		**16,849,858**	17,175,575
Total current assets		**90,744,158**	86,721,862
Total assets		**550,316,013**	512,221,773

		As at 31 December	
	Notes	**2023**	2022
EQUITY AND LIABILITIES			
Equity attributable to equity holders of the Company			
Share capital		**15,698,093**	15,698,093
Other equity instruments	*10*	**79,626,169**	62,083,704
Capital surplus		**23,571,376**	23,710,686
Surplus reserves		**8,140,030**	8,140,030
Reserve funds		**479,264**	117,308
Currency translation differences		**(366,687)**	(602,823)
Retained earnings		**11,614,870**	6,517,524
		138,763,115	115,664,522
Non-controlling interests		**40,591,363**	19,651,537
Total equity		**179,354,478**	135,316,059
Non-current liabilities			
Long-term loans		**162,347,839**	151,677,526
Long-term bonds	*8*	**28,038,374**	39,062,047
Lease liabilities		**6,714,600**	5,622,536
Deferred income tax liabilities		**2,593,143**	2,169,841
Derivative financial liabilities		**454,637**	245,613
Other non-current liabilities		**6,813,588**	6,794,804
Total non-current liabilities		**206,962,181**	205,572,367

	Notes	As at 31 December 2023	2022
Current liabilities			
Accounts payable and other liabilities	*9*	**59,851,144**	54,472,701
Contract liabilities		**3,380,245**	3,348,828
Taxes payable		**2,363,028**	1,647,373
Dividends payable		**554,684**	617,576
Derivative financial liabilities		**240,177**	417,237
Short-term bonds		**6,110,228**	6,312,777
Short-term loans		**57,232,729**	83,573,497
Current portion of long-term loans		**21,076,582**	19,129,989
Current portion of long-term bonds	*8*	**11,829,844**	730,336
Current portion of lease liabilities		**1,279,447**	1,009,339
Current portion of other non-current liabilities		**81,246**	73,694
Total current liabilities		**163,999,354**	171,333,347
Total liabilities		**370,961,535**	376,905,714
Total equity and liabilities		**550,316,013**	512,221,773

NOTES TO THE FINANCIAL INFORMATION EXTRACTED FROM FINANCIAL STATEMENTS PREPARED UNDER IFRSs

(Amounts expressed in thousands of RMB unless otherwise stated)

1 Basis of preparation

These financial statements have been prepared in accordance with IFRSs 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 the 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 2023, the Group had net current liabilities of approximately RMB73.26 billion. Taking into consideration the unutilised banking facilities of exceeding approximately RMB310.00 billion as at 31 December 2023, 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.

2 Material accounting policies

Changes in accounting policies

The Group has adopted the following new and revised IFRSs for the first time for the current year's consolidated financial statements.

IFRS 17	*Insurance Contracts*
Amendments to IAS 1 and IFRS Practice Statement 2	*Disclosure of Accounting Policies*
Amendments to IAS 8	*Definition of Accounting Estimates*
Amendments to IAS 12	*Deferred Tax related to Assets and Liabilities arising from a Single Transaction*
Amendments to IAS 12	*International Tax Reform – Pillar Two Model Rules*

The nature and the impact of the new and revised IFRSs that are applicable to the Group are described below:

(i) Amendments to IAS 1 and IFRS Practice Statement 2 *Disclosure of Accounting Policies*

Amendments to IAS 1 require entities to disclose their material accounting policy information rather than their significant accounting policies. Accounting policy information is material if, when considered together with other information included in an entity's financial statements, it can reasonably be expected to influence decisions that the primary users of general purpose financial statements make on the basis of those financial statements. Amendments to IFRS Practice Statement 2 *Making Materiality Judgements* provide non-mandatory guidance on how to apply the concept of materiality to accounting policy disclosures. The Group has applied the amendments since 1 January 2023. The amendments did not have any significant impact on the measurement, recognition or presentation of any items in the Group's consolidated financial statements.

(ii) Amendments to IAS 8 *Definition of Accounting Estimates*

Amendments to IAS 8 clarify the distinction between changes in accounting estimates and changes in accounting policies. Accounting estimates are defined as monetary amounts in financial statements that are subject to measurement uncertainty. The amendments also clarify how entities use measurement techniques and inputs to develop accounting estimates. The Group has applied the amendments to changes in accounting policies and changes in accounting estimates that occur on or after 1 January 2023. Since the Group's approach and policy align with the amendments, the amendments had no impact on the Group's consolidated financial statements.

(iii) Amendments to IAS 12 *Deferred Tax related to Assets and Liabilities arising from a Single Transaction*

Amendments to IAS 12 *Deferred Tax related to Assets and Liabilities arising from a Single Transaction* narrow the scope of the initial recognition exception in IAS 12 so that it no longer applies to transactions that give rise to equal taxable and deductible temporary differences, such as leases and decommissioning obligations. Therefore, entities are required to recognise a deferred tax asset (provided that sufficient taxable profit is available) and a deferred tax liability for temporary differences arising from these transactions. The Group has applied the amendments on temporary differences related to leases as at 1 January 2022, with no cumulative effect recognised as an adjustment to the balance of retained profits or other component of equity as appropriate at that date. The net allowance of deferred tax assets and liabilities was equal to the amount originally recognised on a net basis and had no effect on the items in the consolidated statement of financial position presented on a net allowance basis.

Details of the effect of the amendments on the notes of the consolidated financial statements are as follows:

	As at 1 January 2022	Effect of adoption of amendments to IAS 12	As at 1 January 2022 (Restated)
Deferred income tax assets before offsetting	6,301,920	305,719	6,607,639
Deferred income tax liabilities before offsetting	(3,694,927)	(305,719)	(4,000,646)
Offset amount	(1,394,839)	(305,719)	(1,700,558)
Deferred income tax assets after offsetting	4,907,081	–	4,907,081
Deferred income tax liabilities after offsetting	(2,300,088)	–	(2,300,088)

	As at 31 December 2022	Effect of adoption of amendments to IAS 12	As at 31 December 2022 (Restated)
Deferred income tax assets before offsetting	7,261,129	341,641	7,602,770
Deferred income tax liabilities before offsetting	(3,798,261)	(341,641)	(4,139,902)
Offset amount	(1,628,420)	(341,641)	(1,970,061)
Deferred income tax assets after offsetting	5,632,709	–	5,632,709
Deferred income tax liabilities after offsetting	(2,169,841)	–	(2,169,841)

The adoption of amendments to IAS 12 did not have any material impact on the consolidated statement of comprehensive income for the years ended 31 December 2023 and 2022.

(iv) Amendments to IAS 12 *International Tax Reform – Pillar Two Model Rules*

Amendments to IAS 12 *International Tax Reform – Pillar Two Model Rules* introduce a mandatory temporary exception from the recognition and disclosure of deferred taxes arising from the implementation of the Pillar Two model rules published by the Organisation for Economic Co-operation and Development. The amendments also introduce disclosure requirements for the affected entities to help users of the financial statements better understand the entities' exposure to Pillar Two income taxes, including the disclosure of current tax related to Pillar Two income taxes separately in the periods when Pillar Two legislation is effective and the disclosure of known or reasonably estimable information of their exposure to Pillar Two income taxes in periods in which the legislation is enacted or substantively enacted but not yet in effect. Entities are required to disclose the information relating to their exposure to Pillar Two income taxes in annual periods beginning on or after 1 January 2023. The Group has not yet applied the temporary exception during the current year because certain of the entities comprising the Group are operating in jurisdictions in which the Pillar Two tax law has not yet been enacted or substantively enacted. The Group is in the process of assessing the potential exposure arising from Pillar Two legislation based on the information available for the financial year ended 31 December 2023. Based on the assessment carried out so far, the Group has identified certain countries where the Pillar Two effective tax rates are likely to be lower than 15%. Quantitative information to indicate potential exposure to Pillar Two income taxes is currently not known or reasonably estimable.

3 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 3(b)).

For the year ended 31 December 2023	**PRC power segment**	**Overseas segment**	**All other segments**	**Inter-segment revenue**	**Total**
		Note 1			
– 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**	**2,180,415**	**–**	**–**	**2,264,215**
– Others	**2,181,284**	**2,068,487**	**32,878**	**(22,260)**	**4,260,389**
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					**252,132,480**
– From other sources					**2,264,215**

For the year ended 31 December 2022	PRC power segment	Overseas segment *Note 1*	All other segments	Inter-segment revenue	Total
– Sales of power and heat	207,923,505	28,167,697	–	–	236,091,202
– Sales of coal ash, coal and raw materials	1,763,278	1,640	–	–	1,764,918
– Port service	–	–	605,072	(346,149)	258,923
– Transportation service	–	–	228,019	(183,609)	44,410
– Lease income	108,211	1,220,675	–	–	1,328,886
– Others	2,444,212	4,781,394	31,421	(20,577)	7,236,450
Total	212,239,206	34,171,406	864,512	(550,335)	246,724,789

Revenue:	
– From contracts with customers within the scope of IFRS 15	245,395,903
– From other sources	1,328,886

Note 1: The overseas 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.

(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 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.

(Under PRC GAAP)

	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)**

	PRC power segment	Overseas segment	All other segments	Total
For the year ended 31 December 2022				
Total revenue	212,239,206	34,171,406	864,512	247,275,124
Intersegment revenue	–	–	(550,335)	(550,335)
External revenue	212,239,206	34,171,406	314,177	246,724,789
Segment results	(12,554,462)	2,493,091	520,002	(9,541,369)
Interest income	203,093	133,871	2,294	339,258
Interest expense	(8,892,309)	(934,676)	(125,096)	(9,952,081)
Impairment loss	(2,726,262)	(5,834)	–	(2,732,096)
Credit loss	46,465	(94,722)	–	(48,257)
Depreciation and amortisation	(22,916,308)	(684,862)	(260,314)	(23,861,484)
Net gain/(loss) on disposal of non-current assets	164,415	(585)	(4)	163,826
Share of profits less losses of associates and joint ventures	423,159	–	522,934	946,093
Income tax expense	(26,205)	(335,157)	(20,844)	(382,206)

(Under PRC GAAP)

	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)**
31 December 2022				
Segment assets	438,449,391	44,394,771	10,779,389	493,623,551
Including:				
Additions to non-current assets (excluding financial assets and deferred income tax assets)	44,492,820	240,565	53,207	44,786,592
Investments in associates	14,748,090	–	5,320,368	20,068,458
Investments in joint ventures	1,208,183	–	1,145,430	2,353,613
Segment liabilities	(344,746,791)	(27,166,963)	(2,015,618)	(373,929,372)

A reconciliation of external revenue to operating revenue is provided as follows:

	For the year ended 31 December	
	2023	2022
External revenue (PRC GAAP)	**254,396,695**	246,724,789
Operating revenue per IFRSs consolidated statement of comprehensive income	**254,396,695**	246,724,789

A reconciliation of segment results to profit before income tax expense is provided as follows:

	For the year ended 31 December	
	2023	2022
Segment results (PRC GAAP)	**13,250,389**	(9,541,369)
Reconciling items:		
Loss related to the headquarters	**(342,414)**	(287,484)
Share of profits of Huaneng Finance	**93,024**	125,340
Dividend income of other equity instrument investments	**835**	832
Impact of IFRSs adjustments*	**(524,692)**	(1,111,276)
Profit/(loss) before income tax expense per IFRSs consolidated statement of comprehensive income	**12,477,142**	(10,813,957)

Reportable segment assets are reconciled to total assets as follows:

	As at 31 December	
	2023	2022
Total segment assets (PRC GAAP)	**533,838,004**	493,623,551
Reconciling items:		
Investment in Huaneng Finance	**1,869,349**	1,476,326
Deferred income tax assets	**4,401,902**	6,322,055
Prepaid income tax	**148,075**	124,575
Other equity instrument investments	**642,923**	708,912
Corporate assets	**259,028**	350,560
Impact of IFRSs adjustments*	**9,156,732**	9,615,794
Total assets per IFRSs consolidated statement of financial position	**550,316,013**	512,221,773

Reportable segment liabilities are reconciled to total liabilities as follows:

	As at 31 December	
	2023	2022
Total segment liabilities (PRC GAAP)	**(366,856,632)**	(373,929,372)
Reconciling items:		
Current income tax liabilities	**(940,307)**	(331,928)
Deferred income tax liabilities	**(1,284,155)**	(1,086,765)
Corporate liabilities	**(715,626)**	(713,863)
Impact of IFRSs adjustments*	**(1,164,815)**	(843,786)
Total liabilities per IFRSs consolidated statement of financial position	**(370,961,535)**	(376,905,714)

Other material items:

	Reportable segment total	Headquarters	Share of profits of Huaneng Finance	Impact of IFRSs adjustments*	Total
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)**
For the year ended 31 December 2022					
Total revenue	246,724,789	–	–	–	246,724,789
Interest expense	(9,952,081)	(10,044)	–	–	(9,962,125)
Depreciation and amortisation	(23,861,484)	(51,809)	–	(574,549)	(24,487,842)
Impairment loss	(2,732,096)	–	–	(396,086)	(3,128,182)
Credit loss	(48,257)	–	–	–	(48,257)
Share of profits less losses of associates and joint ventures	946,093	–	125,340	(29,325)	1,042,108
Net gain on disposal of non-current assets	163,826	–	–	(34,989)	128,837
Income tax expense	(382,206)	–	–	223,548	(158,658)

* IFRSs 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.

Geographical information (Under IFRSs):

(i) External revenue generated from the following countries:

	For the year ended 31 December	
	2023	2022
PRC	**223,274,705**	212,553,383
Overseas	**31,121,990**	34,171,406
Total	**254,396,695**	246,724,789

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	
	2023	2022
PRC	**422,749,621**	386,751,134
Overseas	**22,934,605**	22,586,601
Total	**445,684,226**	409,337,735

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 2023, the revenue from grid companies under common control of State Grid Corporation of China within the PRC power segment in total accounted for 79% of external revenue (2022: 78%). 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			
	2023		2022	
	Amount	**Proportion**	Amount	Proportion
State Grid Shandong Electric Power Company	**36,748,949**	**14%**	37,348,460	15%

(c) Contract assets and liabilities

The contract assets primarily relate to the Group's rights to consideration for service completed but not billed at the reporting date. 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 RMB309 million (2022: RMB323 million) at the beginning of the year has been recognised as revenue of heating pipeline service in 2023. The contract liabilities of RMB2,745 million (2022: RMB2,712 million) at the beginning of the year has been recognised as revenue of heat sales in 2023.

(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	
	2023	2022
Within 1 year	**327,640**	148,671
Over 1 year	**2,478,695**	2,749,993
Total	**2,806,335**	2,898,664

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 2023 that have an original expected duration of one year or less.

4 Income tax expense

	For the year ended 31 December	
	2023	2022
Current income tax expense	**1,848,057**	881,825
Deferred income tax	**1,859,676**	(723,167)
Total	**3,707,733**	158,658

No Hong Kong profits tax has been provided as there were no estimated assessable profits in Hong Kong in 2023 (2022: 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 2023 and 2022.

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) Turn over tax at 1.25% of Revenue ("Turn over 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 taxable income exceeds PKR 500 million.

The reconciliation of the effective income tax rate from the notional income tax rate is as follows:

	For the year ended 31 December	
	2023	2022
PRC statutory enterprise income tax rate	**25.00%**	25.00%
Effect of different tax rates of certain subsidiaries	**(13.65%)**	10.44%
Utilisation of previously unrecognised tax losses and deductible temporary differences	**(3.67%)**	2.60%
Unrecognised tax losses for the year	**15.72%**	(27.58%)
Unrecognised deductible temporary differences	**5.54%**	(8.87%)
Effect of non-taxable income	**0.32%**	2.36%
Effect of non-deductible expenses	**1.79%**	(3.29%)
Others	**(1.33%)**	(2.13%)
Effective tax rate	**29.72%**	(1.47%)

For the year ended 31 December 2023, the effective tax rate was proportioned by income tax expense to profit before tax (for the year ended 31 December 2022: income tax expense to loss before tax).

5 Other non-current assets

Details of other non-current assets are as follows:

	As at 31 December	
	2023	2022
Finance lease receivables *(i)*	**7,887,747**	8,682,006
VAT recoverable	**6,992,811**	5,604,843
Pre-construction cost *(ii)*	**1,780,828**	953,147
Intangible assets *(iii)*	**699,056**	657,420
Prepaid connection fees	**19,713**	24,156
Contract assets	**1,073,544**	1,002,283
Others	**2,853,959**	2,304,074
Total	**21,307,658**	19,227,929

Notes:

(i) Huaneng Shandong Ruyi (Pakistan) Energy (Private) Co., Ltd. ("**Ruyi Pakistan Energy**") entered into a power purchase agreement with Central Power Purchasing Agency (Guarantee) Limited ("**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.

(ii) In 2023, 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 RMB59.25 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 2023, there was no impairment provided for the intangible assets (2022: Nil).

6 Accounts and notes receivable

Accounts and notes receivable comprised the following:

	As at 31 December	
	2023	2022
Accounts receivable	**45,956,773**	39,986,340
Notes receivable	**1,314,425**	2,792,246
	47,271,198	42,778,586
Less: Loss allowance	**130,524**	124,254
Total	**47,140,674**	42,654,332
Analysed into:		
Accounts receivable		
– At amortised cost	**45,956,773**	39,986,340
Notes receivable		
– At amortised cost	**1,314,425**	2,792,246

The gross amounts of accounts receivable and notes receivable are denominated in the following currencies:

	As at 31 December	
	2023	2022
RMB	**43,345,176**	38,114,036
S$ (RMB equivalent)	**1,744,400**	1,756,789
US$ (RMB equivalent)	**59,716**	311,964
PKR (RMB equivalent)	**2,121,906**	2,595,797
Total	**47,271,198**	42,778,586

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 Pte Ltd. ("**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. The credit period of accounts receivable from CPPA-G by Ruyi Pakistan Energy was five months.

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 notes receivable, please refer to Note 9 for details.

Movements of provision for loss allowance during the years are analysed as follows:

	2023	2022
Beginning of the year	**(124,254)**	(140,088)
Provision	**(9,043)**	(10,941)
Reversal	**2,487**	24,859
Write-off	**442**	2,438
Currency translation differences	**(156)**	(522)
End of the year	**(130,524)**	(124,254)

An ageing analysis of accounts and notes receivable based on the invoice date was as follows:

	As at 31 December	
	2023	2022
Within 1 year	**46,235,487**	42,301,386
Between 1 and 2 years	**694,239**	241,380
Between 2 and 3 years	**152,760**	54,471
Over 3 years	**188,712**	181,349
Total	**47,271,198**	42,778,586

As at 31 December 2023, the maturity period of the notes receivable ranged from 1 to 12 months (31 December 2022: from 1 to 12 months).

7 Dividends of ordinary shares and cumulative distribution of other equity instruments

(a) Dividends of ordinary shares

On 28 June 2023, upon the approval from the annual general meeting of the shareholders, the Company declared no dividend in 2022 (2021:Nil).

On 19 March 2024, the Board of Directors proposed a cash dividend of RMB0.20 (inclusive of tax) for each ordinary share amounting to RMB3,140 million for the year of 2023. 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 2023, the net profit attributable to holders of other equity instruments, based on the applicable interest rates, was RMB2,916 million, and the cumulative distribution paid in 2023 was RMB2,374 million.

8 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 2023 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 2022	Issued Amount	Interest	Amortisation	Re-payment	Foreign Exchange Gain	Foreign Currency Translation Differences	Interest Payable	Balance as at 31 December 2023
2016 1st corporate bonds (10 years)	1,200,000	June 2016	10 years	3.98%	3.98%	1,200,000	1,226,454	–	47,688	11	(47,760)	–	–	26,359	1,226,393
2017 1st medium-term notes (5 years)	5,000,000	July 2017	5 years	4.69%	4.90%	5,000,000	8,962	–	–	(8,962)	–	–	–	–	–
2018 2nd medium-term notes (3 years)	2,000,000	July 2018	3 years	4.41%	4.56%	2,000,000	2,799	–	–	(2,799)	–	–	–	–	–
2018 2nd corporate bonds (10 years)	5,000,000	September 2018	10 years	5.05%	5.05%	5,000,000	5,078,254	–	252,287	30	(252,500)	–	–	77,958	5,078,071
2019 1st corporate bonds (10 years)	2,300,000	April 2019	10 years	4.70%	4.70%	2,300,000	2,374,962	–	107,894	14	(108,100)	–	–	74,725	2,374,770
2019 1st medium-term notes (5 years)	1,500,000	July 2019	5 years	3.85%	3.96%	1,500,000	1,524,031	–	57,679	1,435	(57,750)	–	–	26,193	1,525,395
2020 SinoSing oversea bonds (5 years)	2,108,865	February 2020	5 years	2.25%	2.32%	2,108,865	2,100,246	–	47,662	2,446	(46,996)	(40,288)	78,218	17,809	2,141,288
2020 SinoSing oversea bonds (10 years)	2,108,865	February 2020	10 years	2.63%	2.72%	2,108,865	2,094,973	–	55,602	1,936	(54,828)	(40,288)	76,401	20,777	2,133,796
2021 1st green medium-term notes (3 years)	1,000,000	February 2021	3 years	3.45%	3.66%	1,000,000	1,032,499	–	34,500	1,887	(34,500)	–	–	30,814	1,034,386
2021 2nd green medium-term notes (3 years)	2,500,000	April 2021	3 years	3.35%	3.40%	2,500,000	2,560,025	–	83,586	707	(83,750)	–	–	59,495	2,560,568
2021 1st corporate bonds (3 years)	500,000	May 2021	3 years	3.35%	3.35%	500,000	510,199	–	16,750	10	(16,750)	–	–	10,188	510,209
2021 1st corporate bonds (10 years)	1,500,000	May 2021	10 years	3.97%	3.97%	1,500,000	1,536,221	–	59,550	9	(59,550)	–	–	36,219	1,536,230
2021 2nd corporate bonds (3 years)	500,000	June 2021	3 years	3.33%	3.33%	500,000	509,499	–	16,650	10	(16,650)	–	–	9,488	509,509
2021 2nd corporate bonds (10 years)	3,500,000	June 2021	10 years	3.97%	3.97%	3,500,000	3,579,184	–	138,950	21	(138,950)	–	–	79,182	3,579,205
2021 3rd corporate bonds (10 years)	1,800,000	June 2021	10 years	3.99%	3.99%	1,800,000	1,838,173	–	71,820	11	(71,820)	–	–	38,173	1,838,184
2021 1st medium-term notes (3 years)	2,000,000	August 2021	3 years	2.99%	3.01%	2,000,000	2,022,570	–	59,740	(434)	(59,800)	–	–	22,221	2,022,076
2021 2nd medium-term notes (3 years)	2,000,000	November 2021	3 years	3.07%	3.07%	2,000,000	2,006,042	–	61,384	195	(61,400)	–	–	6,207	2,006,221
2021 1st medium-term bonds (JiangSu 3 years)	300,000	December 2021	3 years	2.95%	2.95%	300,000	300,121	–	121	–	(121)	–	–	121	300,121
2022 1st medium-term bonds (10 years)	1,500,000	February 2022	10 years	3.74%	3.80%	1,500,000	1,548,175	–	56,100	714	(56,100)	–	–	47,647	1,548,889
2022 2nd medium-term bonds (3 years)	3,000,000	March 2022	3 years	2.84%	2.89%	3,000,000	3,067,588	–	85,007	1,445	(85,200)	–	–	70,534	3,068,840
2022 3rd medium-term bonds (10 years)	1,500,000	April 2022	10 years	3.70%	3.76%	1,500,000	1,539,040	–	55,394	715	(55,500)	–	–	38,516	1,539,649
2022 1st medium-term notes (JiangSu 3 years)	500,000	April 2022	3 years	2.92%	2.92%	500,000	510,000	–	10,000	–	(10,000)	–	–	10,000	510,000
2022 4th medium-term notes (2 years)	300,000	June 2022	2 years	2.37%	2.40%	300,000	303,765	–	7,100	79	(7,110)	–	–	3,730	303,834
2022 6th medium-term notes (3 years)	2,000,000	August 2022	3 years	2.40%	2.51%	2,000,000	2,014,621	–	47,945	1,918	(48,000)	–	–	19,541	2,016,484
2022 7th medium-term notes (2 years)	500,000	August 2022	2 years	2.14%	2.17%	500,000	503,980	–	10,689	131	(10,700)	–	–	3,947	504,100
Total						46,117,730	39,792,383	–	1,384,098	1,529	(1,383,835)	(80,576)	154,619	729,844	39,868,218

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 2022 are summarized as follows:

Type of Instruments	Face Value	Issuance Date	Initial Period	Initial Distribution Rate	Effective Rate	Issue Price	Balance as at 31 December 2021	Issued Amount	Amortisation	Interest	Repayment	Foreign Exchange Gain	Foreign Currency Translation Differences	Interest Payable	Balance as at 31 December 2022
2016 1st corporate bonds (5 years)	3,000,000	June 2016	5 years	3.48%	3.48%	3,000,000	9	–	(9)	–	–	–	–	–	–
2016 1st corporate bonds (10 years)	1,200,000	June 2016	10 years	3.98%	3.98%	1,200,000	1,226,442	–	12	47,760	(47,760)	–	–	26,430	1,226,454
2017 1st medium-term notes (5 years)	5,000,000	July 2017	5 years	4.69%	4.90%	5,000,000	5,114,928	–	5,181	123,353	(5,234,500)	–	–	–	8,962
2018 2nd medium-term notes (3 years)	2,000,000	July 2018	3 years	4.41%	4.56%	2,000,000	2,799	–	–	–	–	–	–	–	2,799
2018 2nd corporate bonds (10 years)	5,000,000	September 2018	10 years	5.05%	5.05%	5,000,000	5,078,224	–	30	252,500	(252,500)	–	–	78,171	5,078,254
2019 1st corporate bonds (10 years)	2,300,000	April 2019	10 years	4.70%	4.70%	2,300,000	2,374,948	–	14	108,100	(108,100)	–	–	74,930	2,374,962
2019 2nd corporate bonds (3 years)	1,000,000	July 2019	3 years	3.55%	3.55%	1,000,000	1,017,160	–	(42)	18,382	(1,035,500)	–	–	–	–
2019 1st medium-term notes (3 years)	500,000	July 2019	3 years	3.55%	3.65%	500,000	507,807	–	266	9,677	(517,750)	–	–	–	–
2019 1st medium-term notes (5 years)	1,500,000	July 2019	5 years	3.85%	3.96%	1,500,000	1,522,587	–	1,444	57,750	(57,750)	–	–	26,264	1,524,031
2020 SinoSing oversea bonds (5 years)	2,108,865	February 2020	5 years	2.25%	2.32%	2,108,865	1,920,795	–	329	47,714	(47,810)	(11,250)	190,468	17,493	2,100,246
2020 SinoSing oversea bonds (10 years)	2,108,865	February 2020	10 years	2.63%	2.72%	2,108,865	1,915,197	–	406	55,666	(55,778)	(11,250)	190,732	20,409	2,094,973
2021 1st green medium-term notes (3 years)	1,000,000	February 2021	3 years	3.45%	3.66%	1,000,000	1,030,612	–	1,887	34,500	(34,500)	–	–	30,814	1,032,499
2021 2nd green medium-term notes (3 years)	2,500,000	April 2021	3 years	3.35%	3.40%	2,500,000	2,559,318	–	707	83,750	(83,750)	–	–	59,658	2,560,025
2021 1st corporate bonds (3 years)	500,000	May 2021	3 years	3.35%	3.35%	500,000	510,189	–	10	16,750	(16,750)	–	–	10,188	510,199
2021 1st corporate bonds (10 years)	1,500,000	May 2021	10 years	3.97%	3.97%	1,500,000	1,536,212	–	9	59,550	(59,550)	–	–	36,219	1,536,221
2021 2nd corporate bonds (3 years)	500,000	June 2021	3 years	3.33%	3.33%	500,000	509,489	–	10	16,650	(16,650)	–	–	9,488	509,499
2021 2nd corporate bonds (10 years)	3,500,000	June 2021	10 years	3.97%	3.97%	3,500,000	3,579,163	–	21	138,950	(138,950)	–	–	79,182	3,579,184
2021 3rd corporate bonds (10 years)	1,800,000	June 2021	10 years	3.99%	3.99%	1,800,000	1,838,162	–	11	71,820	(71,820)	–	–	38,173	1,838,173
2021 1st medium-term notes (3 years)	2,000,000	August 2021	3 years	2.99%	3.01%	2,000,000	2,022,070	–	500	59,800	(59,800)	–	–	22,282	2,022,570
2021 2nd medium-term notes (3 years)	2,000,000	November 2021	3 years	3.07%	3.07%	2,000,000	2,006,225	–	(183)	61,400	(61,400)	–	–	6,224	2,006,042
2021 1st medium-term notes (JiangSu 3 years)	300,000	December 2021	3 years	2.95%	2.95%	300,000	300,123	–	–	8,848	(8,850)	–	–	121	300,121
2022 1st medium-term notes (10 years)	1,500,000	February 2022	10 years	3.74%	3.80%	1,500,000	–	1,500,000	528	47,647	–	–	–	47,647	1,548,175
2022 2nd medium-term notes (3 years)	3,000,000	March 2022	3 years	2.84%	2.89%	3,000,000	–	3,000,000	(3,140)	70,728	–	–	–	70,728	3,067,588
2022 3rd medium-term notes (10 years)	1,500,000	April 2022	10 years	3.70%	3.76%	1,500,000	–	1,500,000	418	38,622	–	–	–	38,622	1,539,040
2022 1st medium-term notes (JiangSu 3 years)	500,000	April 2022	3 years	2.92%	2.92%	500,000	–	500,000	–	10,000	–	–	–	10,000	510,000
2022 4th medium-term notes (2 years)	300,000	June 2022	2 years	2.37%	2.40%	300,000	–	300,000	25	3,740	–	–	–	3,740	303,765
2022 6th medium-term notes (3 years)	2,000,000	August 2022	3 years	2.40%	2.51%	2,000,000	–	2,000,000	(4,974)	19,595	–	–	–	19,595	2,014,621
2022 7th medium-term notes (2 years)	500,000	August 2022	2 years	2.14%	2.17%	500,000	–	500,000	22	3,958	–	–	–	3,958	503,980
Total						50,617,730	36,572,459	9,300,000	3,482	1,467,210	(7,909,468)	(22,500)	381,200	730,336	39,792,383

As at 31 December 2023, the Company provided guarantees for long-term bonds of approximately RMB4,250 million (31 December 2022: RMB4,179 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	
	2023	2022
Within 1 year	**13,239,426**	2,110,625
After 1 year but within 2 years	**6,645,322**	1,141,603
After 2 years but within 5 years	**10,723,061**	22,427,334
After 5 years	**15,701,706**	21,252,990
	46,309,515	46,932,552

9 Accounts payable and other liabilities

Accounts payable and other liabilities comprised:

	As at 31 December	
	2023	2022
Accounts and notes payables	**22,562,908**	24,367,693
Payables to contractors for construction	**28,239,563**	21,443,219
Retention payables to contractors	**2,015,050**	1,773,257
Consideration payables for acquiring a subsidiary	**22,842**	22,842
Others	**7,010,781**	6,865,690
Total	**59,851,144**	54,472,701

As at 31 December 2023, there were no notes payable (31 December 2022: RMB22 million) secured by notes receivable.

As at 31 December 2023 and 31 December 2022, the accounts and notes payables and other liabilities are non-interest-bearing.

The carrying amounts of accounts payable and other liabilities are denominated in the following currencies:

	As at 31 December	
	2023	2022
RMB	**55,767,881**	49,619,219
S$ (RMB equivalent)	**1,327,085**	2,047,597
US$ (RMB equivalent)	**1,959,873**	2,146,746
JPY (RMB equivalent)	**109,147**	16,700
PKR (RMB equivalent)	**687,144**	642,426
GBP (RMB equivalent)	**14**	13
Total	**59,851,144**	54,472,701

The ageing analysis of accounts and notes payable, based on the invoice date, was as follows:

	As at 31 December	
	2023	2022
Within 1 year	**20,595,605**	23,857,045
Between 1 to 2 years	**1,630,731**	368,324
Over 2 years	**336,572**	142,324
Total	**22,562,908**	24,367,693

10 Other equity instruments

(a) Other equity instruments as at 31 December 2023

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
2019 medium-term notes (4th)	November 2019	Equity Instrument	4.53%	0.1	15,000,000	1,500,000	5 years	None	None
Bond D	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
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 (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
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
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

Type of Instruments	Issuance Date	Category	Initial Distribution Rate	Issue Price	Number	Par Value	Initial Period	Conversion Condition	Conversion Result
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
2023medium-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
Total						78,550,000			

(b) Changes of other equity instruments during 2023

Type of Instruments	As at 1 January 2023 Number	As at 1 January 2023 Amount	Issuance Number	Issuance Amount	Cumulative distributions Accrued distribution	Cumulative distributions Distribution payment	Cumulative distributions Redemption value	Cumulative distributions Other reduction	As at 31 December 2023 Number	As at 31 December 2023 Amount
Yingda Insurance Financing Plan (1st)	–	3,288,808	–	–	192,726	192,726	–	–	–	3,288,808
Yingda Insurance Financing Plan (2nd)	–	828,463	–	–	48,548	48,548	–	–	–	828,463
Yingda Insurance Financing Plan (3rd)	–	891,575	–	–	52,247	52,247	–	–	–	891,575
China Life Financing Plan (1st)	–	2,073,485	–	–	105,987	148,381	–	–	–	2,031,091
PICC Financing Plan (1st)	–	930,791	–	–	48,089	–	–	–	–	978,880
China Life Financing Plan (2nd)	–	2,263,804	–	–	115,715	129,536	–	–	–	2,249,983
PICC Financing Plan (2nd)	–	1,741,479	–	–	89,973	92,623	–	–	–	1,738,829
2019 medium-term notes (4th)	15,000,000	1,510,611	–	–	67,921	67,950	–	–	15,000,000	1,510,582
Bond C	20,000,000	2,055,711	–	–	15,889	71,600	2,000,000	–	–	–
Bond D	10,000,000	1,029,956	–	–	38,500	38,500	–	–	10,000,000	1,029,956
2020 medium-term notes (1st)	30,000,000	3,068,740	–	–	26,660	95,400	3,000,000	–	–	–
China Life Financing Plan (3rd)	–	3,575,653	–	–	171,930	115,715	–	–	–	3,631,868
PICC Financing Plan (3rd)	–	930,736	–	–	44,788	139,533	–	–	–	835,991
Bond E	25,000,000	2,553,546	–	–	23,704	77,250	2,500,000	–	–	–
2020 medium-term notes (2nd)	35,000,000	3,567,660	–	–	58,340	126,000	3,500,000	–	–	–
2020 medium-term notes (3nd)	20,000,000	2,029,516	–	–	50,284	79,800	2,000,000	–	–	–
PICC Financing Plan (4th)	–	3,002,300	–	–	139,917	89,726	–	–	–	3,052,491
Bond F	30,000,000	3,040,680	–	–	90,720	131,400	3,000,000	–	–	–
2020 medium-term notes (4th)	10,000,000	1,012,899	–	–	31,101	44,000	1,000,000	–	–	–
2022 medium-term notes (5th)	20,000,000	2,026,169	–	–	58,529	58,600	–	–	20,000,000	2,026,098
2022 medium-term notes (8th)	5,000,000	504,608	–	–	13,887	13,900	–	–	5,000,000	504,595
2022 medium-term notes (9th)	20,000,000	2,012,034	–	–	55,567	55,600	–	–	20,000,000	2,012,001
2022 medium-term notes (10th)	20,000,000	2,010,284	–	–	54,373	54,400	–	–	20,000,000	2,010,257
2022 medium-term notes (11th)	25,000,000	2,510,749	–	–	66,471	66,500	–	–	25,000,000	2,510,720
Huaneng Trust (1st)	–	2,520,529	–	–	72,750	68,166	–	–	–	2,525,113
Huaneng Trust (2nd)	–	3,070,200	–	–	93,330	86,682	–	–	–	3,076,848
Huaneng Trust (3rd)	–	4,016,359	–	–	124,400	116,902	–	–	–	4,023,857
Huaneng Trust (4th)	–	4,016,359	–	–	124,400	112,130	–	–	–	4,028,629

Type of Instruments	As at 1 January 2023 Number	As at 1 January 2023 Amount	Issuance Number	Issuance Amount	Cumulative distributions Accrued distribution	Cumulative distributions Distribution payment	Cumulative distributions Redemption value	Cumulative distributions Other reduction	As at 31 December 2023 Number	As at 31 December 2023 Amount
2023 medium-term notes (1st Energy Supply Bond)	–	–	30,000,000	3,000,000	112,732	–	–	–	30,000,000	3,112,732
2023 medium-term notes (2nd Energy Supply Bond)	–	–	30,000,000	3,000,000	100,212	–	–	–	30,000,000	3,100,212
2023 medium-term notes (3rd Energy Supply Bond)	–	–	30,000,000	3,000,000	92,786	–	–	–	30,000,000	3,092,786
2023 medium-term notes (4th Energy Supply Bond)	–	–	25,000,000	2,500,000	76,504	–	–	–	25,000,000	2,576,504
2023 medium-term notes (5th Energy Supply Bond)	–	–	30,000,000	3,000,000	89,954	–	–	–	30,000,000	3,089,954
2023 medium-term notes (6th)	–	–	20,000,000	2,000,000	55,410	–	–	–	20,000,000	2,055,410
2023 medium-term notes (7th Energy Supply Bond)	–	–	25,000,000	2,500,000	71,613	–	–	–	25,000,000	2,571,613
2023 medium-term notes (8th)	–	–	20,000,000	2,000,000	46,773	–	–	–	20,000,000	2,046,773
2023 medium-term notes (9th)	–	–	20,000,000	2,000,000	45,957	–	–	–	20,000,000	2,045,957
2023 medium-term notes (10th)	–	–	15,000,000	1,500,000	32,816	–	–	–	15,000,000	1,532,816
2023 medium-term notes (11th)	–	–	20,000,000	2,000,000	33,805	–	–	–	20,000,000	2,033,805
2023 medium-term notes (12th)	–	–	15,000,000	1,500,000	24,652	–	–	–	15,000,000	1,524,652
2023 medium-term notes (13th)	–	–	20,000,000	2,000,000	19,986	–	–	–	20,000,000	2,019,986
2023 medium-term notes (14th)	–	–	20,000,000	2,000,000	19,167	–	–	–	20,000,000	2,019,167
2023 medium-term notes (15th)	–	–	20,000,000	2,000,000	17,167	–	–	–	20,000,000	2,017,167
Total	285,000,000	62,083,704	340,000,000	34,000,000	2,916,280	2,373,815	17,000,000	–	455,000,000	79,626,169

11 Additional financial information to the consolidated statement of financial position

As at 31 December 2023, the net current liabilities of the Group amounted to approximately RMB73,255 million (31 December 2022: RMB84,611 million). On the same date, total assets less current liabilities were approximately RMB386,317 million (31 December 2022: RMB340,888 million).

12 Profit/(loss) before income tax expense

Profit/(loss) before income tax expense was determined after charging/(crediting) the following:

	For the year ended 31 December	
	2023	2022
Total interest expense	**9,626,031**	10,955,940
Less: amounts capitalised in property, plant and equipment	**687,947**	993,815
Interest expense charged to the consolidated statement of comprehensive income	**8,938,084**	9,962,125
Including: Interest expense on lease liabilities	**255,306**	298,798
Depreciation of property, plant and equipment	**24,679,041**	23,372,667
Depreciation of investment properties	**24,541**	21,791
Depreciation of right-of-use assets	**788,698**	985,746
	25,492,280	24,380,204
Included in other investment gain		
– Proceeds from disposal of investments in an associate and an subsidiary	**(1,926,775)**	–
– Dividends on other equity instrument investments	**(835)**	(832)
– Others	**(2,802)**	(4,606)
	(1,930,412)	(5,438)

	For the year ended 31 December	
	2023	2022
Included in other operating expenses:		
– Operating expense of Ruyi Pakistan Energy	**2,365,674**	4,612,008
– Service concession construction cost	**3,802**	89,048
– Other materials expense	**1,805,231**	1,641,319
– Electricity charges	**919,282**	758,112
– Cost of sales of raw materials	**758,320**	631,590
– Water charges	**577,699**	594,212
– Insurance expense	**483,186**	490,155
– Cleaning, greening and fire protection expense	**399,362**	434,833
– Purchase of power generation quota	**29,338**	708
– Transportation allowance	**208,975**	194,367
– Pollutant charge	**85,528**	127,015
– Water conservancy fund and disabled security fund	**118,746**	107,873
– Test and inspection expense	**310,665**	343,754
– Service charge	**961,806**	545,375
– Heating pipeline related cost	**147,874**	158,520
– Auditors' remuneration-audit services	**44,025**	40,326
– Other consulting expense	**131,176**	161,004
– Office expense	**303,218**	278,921
– Minimum lease payments under operating leases, lease payments not included in the measurement of lease liabilities	**294,148**	327,003
– Amortisation of other non-current assets	**239,480**	107,638
– Property management expense	**145,124**	138,110
– Information technology maintenance expense	**278,885**	254,415
– Travel expense	**181,276**	90,300
– Business entertainment expense	**36,476**	34,318
– Research and development expenditure	**1,532,921**	1,607,847
– Net loss on disposal of materials and supplies	**–**	185

	For the year ended 31 December	
	2023	2022
– Net loss/(gain) on disposal of non-current assets	**354,812**	(128,837)
– Recognition of provision for inventory obsolescence	**40,781**	6,486
– Impairment loss on property, plant and equipment	**2,735,886**	1,823,978
– Impairment loss on goodwill	**295,001**	897,524
– Impairment loss on other non-current assets*	**65,234**	400,194
– Gain on Three Supplies and Property Management	**(11,048)**	(139,094)
– Government grants**	**(1,231,671)**	(1,722,363)
– Donations	**73,060**	36,400
– Safety production expense	**1,784,442**	131,536
– Others	**1,296,623**	608,407
Total	**17,765,337**	15,683,187

* In 2023, the impairment loss on other non-current assets included impairment losses of RMB59.25 million on pre-construction cost and an impairment loss of RMB5.98 million on the Company's investment in an associate.

** In 2023, the government grants related to income mainly included heat supply subsidy of RMB234 million (2022: RMB435 million), shutdown standby compensation of RMB11 million (2022: RMB389 million), thermal coal subsidy of RMB368 million (2022: RMB312 million), VAT reduction and rebate of RMB165 million (2022: RMB204 million), the post stabilization subsidy of RMB9 million (2022: RMB14 million) and the coal guarantee fund received by each company of RMB27 million (2022: RMB10 million).

13 Earnings/(losses) per share

The basic earnings/(loss) per share is calculated by dividing the consolidated net profit/(loss) 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	
	2023	2022
Consolidated net profit/(loss) attributable to equity holders of the Company	**8,357,460**	(8,026,233)
Less: distribution of other equity instruments	**2,916,280**	2,191,950
Consolidated net profit/(loss) attributable to ordinary shareholders of the Company	**5,441,180**	(10,218,183)
Weighted average number of the Company's outstanding ordinary shares *('000)* *	**15,698,093**	15,698,093
Basic and diluted earnings/(loss) per share *(RMB)*	**0.35**	(0.65)

* Weighted average number of ordinary shares:

	2023	2022
	'000	*'000*
Issued ordinary shares at beginning of the year	**15,698,093**	15,698,093
Weighted average number of ordinary shares at ending of the year	**15,698,093**	15,698,093

There was no dilutive effect on earnings/(loss) per share since the Company had no dilutive potential ordinary shares for the years ended 31 December 2023 and 2022.

14 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, while the judgement was not made yet. Shengdong Rudong intends to argue from many aspects that it should not bear any infringement liability, but 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.

15 Disposal of a subsidiary

As at 21 July 2023, Huaneng Zhanhua Co-generation Limited Company ("**Zhanhua Co-generation**") was bankrupted under the declaration of the People's Court of Zhanhua District of Binzhou in Jinan province. Zhanhua Co-generation was not consolidated by the Group since the date of bankruptcy (21 July 2023). The net loss of the bankruptcy of Zhanhua Co-generation was RMB34 million.

The details of the net assets disposed of are as follows:

	Date of disposal
Property, plant and equipment	118,755
Right-of-use assets	58,925
Inventories	796
Other receivable and assets	19,535
Cash and cash equivalents	199
Other non-current assets	82,822
Accounts payable and other liabilities	(1,912,411)
Taxes payable	(2,559)
Net assets	(1,633,938)
The Company's impairment loss of receivables due from Zhanhua Co-generation	1,668,081
Net loss on disposal	34,143

An analysis of the cash flow in respect of the disposal of Zhanhua Co-generation is as follows:

	Date of disposal
Cash consideration received	-
Cash and bank balances disposed of	(199)
Net outflows of cash and cash equivalents in respect of disposal of Zhanhua Co-generation	(199)

B. FINANCIAL INFORMATION EXTRACTED FROM CONSOLIDATED FINANCIAL STATEMENTS PREPARED UNDER PRC GAAP

(Amount expressed in units of RMB unless otherwise stated)

1 Financial Highlights and Financial Ratios

	Unit	**2023**	2022	**Fluctuation %**
Operating revenue	RMB	254,396,694,532	246,724,789,201	3.11
Profit/(loss) before income tax expense	RMB	13,001,834,461	(9,702,681,652)	234.00
Net profit/(loss) attributable to equity holders of the Company	RMB	8,445,560,446	(7,387,119,286)	214.33
Net profit/(loss) attributable to equity holders of the Company less non-recurring items	RMB	5,611,405,323	(9,422,071,298)	159.56
Basic and diluted earnings/(losses) per share	RMB/share	0.35	(0.61)	157.38
Basic earnings/(losses) per share less non-recurring items	RMB/share	0.17	(0.74)	122.97
Weighted average of return on equity	%	11.25	(18.50)	160.81
Weighted average of return on equity less non-recurring items	%	5.48	(22.43)	124.43
Net cash flow provided by operating activities	RMB	45,497,117,051	32,519,550,114	39.91
Total assets	RMB	541,159,281,130	502,605,977,488	7.67
Equity attributable to equity holders of the Company	RMB	132,138,663,588	108,535,478,172	21.75

Note: The formula of financial ratio:

Earnings per share	=	Consolidated net profit attributable to ordinary shareholders of the Company/Weighted average number of the Company's outstanding ordinary shares
Weighted average of the return on equity	=	Consolidated net profit attributable to equity holders of the Company/Weighted average number of equity attributable to equity holders of the Company (exclusive of non-controlling interests) *100%

2 ITEMS AND AMOUNTS OF NON-RECURRING ITEMS

	For the year ended 31 December 2023
Net gain on disposal of non-current assets, including the reversal of impairment loss on assets	1,692,418,369
Government grants recognized in profit or loss for the current period (except for government grants that are closely related to normal business operations, comply with national policies and regulations, are enjoyed according to determined standards, and have a sustained impact on profit or loss) *(Note 1)*	1,181,684,431
Profit and loss from entrusting others to invest or manage assets	(15,538,277)
Custody fee income obtained from entrusted operation	193,450,512
Reversal of loss allowances for receivables and contract assets individually tested for impairments	4,614,899
Profits and losses from entrusted loans	3,208,080
Non-operating income and expenses besides items above	(84,917,459)
Other items recorded in the profit and loss in accordance with the definition of non-recurring items	(23,095,350)
Impact of income tax	(42,979,044)
Impact of non-controlling interests (net of tax)	(74,691,038)
	2,834,155,123

Note 1: The Company and its subsidiaries recognised non-recurring profit and loss items in accordance with the requirement of *Explanatory Announcement No.1 on Information Disclosure for Companies Offering Their Securities to the Public_ Non-recurring Profit and Loss* (CSRC announcement [2023] No. 65).

The items not listed in the *Explanatory Announcement No. 1 on Information Disclosure of Companies Offering Their Securities to the Public – Non recurring Profit and Loss* are recognized as non recurring profit and loss items with significant amounts, and the non recurring profit and loss items listed in the *Explanatory Announcement No. 1 on Information Disclosure of Companies Offering Their Securities to the Public – Non recurring Profit and Loss* are defined as recurring profit and loss items as follows:

	The Amount of 2023	Reason
Value-added tax levied immediately returned and refund of individual income tax handling fee	161,904,411	Closely related to the normal business of the Company
Carbon emissions trading costs	47,513,519	Closely related to the normal business of the Company
Carbon emissions trading incomes	295,744,079	Closely related to the normal business of the Company

3 INCOME STATEMENTS

	For the year ended 31 December			
	2023	2022	**2023**	2022
	Consolidated	Consolidated	**Company**	Company
Operating revenue	**254,396,694,532**	246,724,789,201	**29,623,158,998**	29,158,191,109
Less: Operating cost	**223,574,929,497**	239,220,714,581	**27,657,925,010**	30,386,215,490
Taxes and surcharges	**1,634,846,622**	1,442,438,292	**272,673,036**	248,599,535
Selling expenses	**237,955,309**	180,177,087	**16,054,906**	16,678,721
General and administrative expenses	**6,447,634,613**	5,636,682,791	**1,761,929,333**	1,566,087,070
Research and development expenses	**1,532,920,880**	1,607,846,589	**115,338,026**	279,095,663
Financial expenses	**8,868,372,728**	9,486,716,366	**1,970,743,746**	2,060,397,534
Including: Interest expenses	**8,938,083,718**	9,962,125,108	**2,294,675,104**	2,370,854,970
Interest income	**506,877,851**	339,257,545	**327,342,606**	373,822,968
Add: Other income	**1,347,448,170**	1,965,834,016	**147,855,455**	560,473,567
Investment income	**2,796,910,370**	1,076,871,295	**9,434,920,068**	7,520,013,143
Including: investment income from associates and joint ventures	**820,591,826**	1,071,433,053	**733,113,482**	1,262,255,279
Credit losses	**(126,874,320)**	(48,257,115)	**(293,935,451)**	54,967,924
Impairment losses	**(2,972,193,011)**	(2,732,097,106)	**(3,441,170,489)**	(111,036,208)
Gain on disposal of non-current assets	**100,180,125**	176,733,417	**(52,351)**	1,432,498
Operating profit/(loss)	**13,245,506,217**	(10,410,701,998)	**3,676,112,173**	2,626,968,020
Add: Non-operating income	**570,833,059**	952,336,741	**177,172,741**	141,228,354
Less: Non-operating expenses	**814,504,815**	244,316,395	**198,653,587**	17,584,890
Profit/(loss) before income tax expense	**13,001,834,461**	(9,702,681,652)	**3,654,631,327**	2,750,611,484
Less: Income tax expense	**3,919,368,262**	382,205,764	**363,077,751**	198,510,685
Net profit/(loss)	**9,082,466,199**	(10,084,887,416)	**3,291,553,576**	2,552,100,799

	For the year ended 31 December			
	2023 Consolidated	2022 Consolidated	**2023 Company**	2022 Company
(1) Classification according to the continuity of operation				
– Continuous operating net profit/(loss)	**9,082,466,199**	(10,084,887,416)	**3,291,553,576**	2,552,100,799
(2) Classification according to ownership				
–Net profit/(loss) to equity holders of the Company	**8,445,560,446**	(7,387,119,286)		
–Net profit/(loss) to non-controlling interests	**636,905,753**	(2,697,768,130)		
Other comprehensive income, net of tax	**(117,551,857)**	(444,027,395)	**(60,623,493)**	48,606,308
Other comprehensive income attributable to equity holders of the Company, net of tax	**296,494,469**	(88,475,318)	**(60,623,493)**	48,606,308
(1) Items that will not be reclassified to profit or loss:				
Share of other comprehensive loss of investees accounted for under the equity method (non-recycling)	**(29,525,261)**	32,960,495	**(29,525,261)**	32,960,495
Fair value changes of other equity instrument investments	**(40,522,258)**	(9,458,065)	**(43,245,298)**	(9,970,199)
(2) Items that may be reclassified subsequently to profit or loss:				
Share of other comprehensive income of investees accounted for under the equity method (recycling)	**12,147,066**	25,616,012	**12,147,066**	25,616,012
Effective portion of cash flow hedges	**118,259,066**	(978,169,189)	**–**	–
Translation differences of the financial statements of foreign operations	**236,135,856**	840,575,429	**–**	–
Other comprehensive income attributable to non-controlling interests, net of tax	**(414,046,326)**	(355,552,077)	**–**	–
Total comprehensive income/(loss)	**8,964,914,342**	(10,528,914,811)	**3,230,930,083**	2,600,707,107

	For the year ended 31 December			
	2023	2022	**2023**	2022
	Consolidated	Consolidated	**Company**	Company
Attributable to:				
– Equity holders of the Company	**8,742,054,915**	(7,475,594,604)		
– Non-controlling interests	**222,859,427**	(3,053,320,207)		
Earnings/(losses) per share				
– Basic (RMB/share)	**0.35**	(0.61)		
– Diluted (RMB/share)	**0.35**	(0.61)		

4 CONSOLIDAED FINANCIAL STATEMENTS RECONCILIATION BETWEENT PRC GAAP AND IFRSs

The financial statements, which have been prepared by the Group in conformity with PRC GAAP, differ in certain respects from those of IFRSs. The major impact of adjustments for IFRSs, on the consolidated net profit 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	
	2023	2022
Consolidated net profit/(loss) attributable to equity holders of the Company under PRC GAAP	**8,445,560,446**	(7,387,119,286)
Impact of IFRSs adjustments:		
Differences in accounting treatment on business combinations under common control, depreciation, amortisation, disposal and impairment of assets acquired in business combinations (a)	**(872,451,882)**	(1,097,404,290)
Difference on depreciation related to borrowing costs capitalised in previous years (b)	**(16,112,045)**	(22,074,135)
Impact of special reserves (c)	**419,686,097**	65,207,479
Others	**(55,815,801)**	(57,004,718)
Applicable deferred income tax impact on the GAAP differences above (d)	**211,635,688**	223,547,876
Profit attributable to non-controlling interests on the adjustments above	**224,956,934**	248,614,325
Consolidated net profit/(loss) attributable to equity holders of the Company under IFRSs	**8,357,459,437**	(8,026,232,749)

(a) Differences in the accounting treatment on business combinations under common control, depreciation, amortisation, disposal and impairment of assets acquired in business combinations

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 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 IFRSs, 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 IFRSs 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 of such investments. Such differences will be gradually eliminated following subsequent depreciation, amortisation and disposal of the related assets.

(b) Effect of depreciation on the capitalisation of borrowing costs in previous years

In previous years, under 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 IFRSs, 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 IFRSs in previous years.

(c) Impact of GAAP differences on special reserves

Special reserves include safety production expenses. According to PRC GAAP, when calculating safety production expenses, they are included in the special reserves of production costs and shareholder equity; Directly offsetting special reserves when expenses of a cost nature occur; Capital expenditures are transferred to fixed assets upon completion, and special reserves are offset against the cost of fixed assets. Accumulated depreciation is fully recognized, and related fixed assets are no longer depreciated in future periods. According to IFRSs, related expenses are only recognized when incurred, and unused special reserves are recognized as provisions for undistributed profits.

(d) Impact of GAAP differences on deferred income tax

This represents the impact of GAAP differences above on the related deferred income tax where applicable.