

中國廣核電力股份有限公司  
CGN Power Co., Ltd.\*

*(A joint stock company incorporated in the  
People's Republic of China with limited liability)*

2019 Annual Report

CGN



\*For identification purpose only

# Contents



## Business at a glance for the year

- 1 2019 Major Events
- 2 Key Data for 2019
- 5 Business Model
- 6 **Chairman's Statement**
- 9 **President's Review**
- 14 **Shareholder Value**



## Finance, Assets and Investment

- 18 Financial Performance and Analysis
- 23 Assets and Investment



## Business Performance and Outlook

- 28 Industry Overview
- 29 Business Performance and Analysis
- 41 Future Outlook



## Capitals

- 44 Production Capital
- 50 Intellectual Capital
- 55 Human Capital
- 65 Financial Capital
- 73 Environmental Capital
- 75 Social and Relationship Capital



## Corporate Governance

- 80 Board of Directors, Supervisory Committee and Senior Management
- 87 Corporate Governance Report
- 119 Directors' Report
- 131 Audit and Risk Management Committee Report
- 132 Remuneration Committee Report
- 134 Nomination Committee Report
- 136 Nuclear Safety Committee Report
- 137 Supervisory Committee Report
- 141 Risk Management Report



## Financial Report

- 150 Audit Report
- 153 Consolidated Balance Sheet
- 155 Balance Sheet of the Parent Company
- 157 Consolidated Income Statement
- 158 Income Statement of Parent Company
- 159 Consolidated Cash Flow Statement
- 160 Cash Flow Statement of the Parent Company
- 161 Consolidated Statement of Changes in Shareholders' Equity
- 162 Statement of Changes in Shareholders' Equity of Parent Company
- 163 Notes to the Financial Statements
- 284 Supplementary Information
- 285 **Company Information**

This 2019 Annual Report ("Annual Report") is the sixth annual report of CGN Power Co., Ltd. \* ("CGN Power", the "Company", "we" or "us") since its listing. We continue to adopt the International Integrated Reporting Framework published by the International Integrated Reporting Council ("IIRC", website: [www.theiirc.org](http://www.theiirc.org)) in December 2013 as the major guideline for this Annual Report. In preparing this report, we have also followed the "Environmental, Social and Governance Reporting Guide" of The Stock Exchange of Hong Kong Limited ("Hong Kong Stock Exchange") as amended on December 21, 2015 and referred to other relevant documents and guidelines such as "The Standards for Contents and Formats of Information Disclosure by Companies Publicly Offering Securities No. 2 – Contents and Formats of Annual Reports (Revision 2017)" of China Securities Regulatory Commission (the "CSRC") as published on December 26, 2017.

For continuous improvement of the quality of annual reports, we welcome valuable advice on the contents and formats of this Annual Report. Please give us feedback by filling out the feedback form at the end of this Annual Report.

Unless otherwise defined in this Annual Report, the terms used in this Annual Report shall have the same meanings as those defined in the 2018 Annual Report of the Company dated April 8, 2019. This Annual Report has been prepared in Chinese and English respectively. In case of discrepancy, the Chinese version shall prevail.

For 2019, we continue to publish the Environmental, Social and Governance Report (the "ESG Report") separately to report to the community, the public, shareholders and all relevant parties on more environmental, social and governance practices in 2019. For details, please refer to the 2019 Environmental, Social and Governance Report (the "2019 ESG Report") published on our website at [www.cgnp.com.cn](http://www.cgnp.com.cn) on March 25, 2020.

# Business at a glance for the year

CGN Power Co., Ltd. was established on March 25, 2014, listed on the Main Board of the Hong Kong Stock Exchange on December 10, 2014, and listed on the Small and Medium Enterprise Board of the Shenzhen Stock Exchange ("SZSE") on August 26, 2019.

CGN Power is the sole platform for nuclear power generation of China General Nuclear Power Corporation (中國廣核集團有限公司) ("CGNPC"). We build, operate and manage nuclear power plants ("NPP(s)"), sell electricity generated by these NPPs, and organize to develop the design and research & development ("R&D") of NPPs.

Based on our principle of "Safety First, Quality Foremost, Pursuit of Excellence" and our core value of "Doing Things Right in One Go", we are committed to nuclear power-based electricity supply and services, to create the best benefits for our customers, shareholders, employees and society, and strive to become a world-class nuclear power supplier and service provider.

## 2019 Major Events

### Equity financing

On August 26, the Company completed the initial public offering of 5,049,861,100 RMB ordinary shares ("A shares") ("A Share IPO") for proceeds of RMB12,574,154,139.00 in aggregate. As at December 31, the proceeds from the A share offering were fully used.

### New operating units

On July 24, Yangjiang Unit 6 commenced commercial operation. Yangjiang Nuclear Power Base became the world's largest nuclear power base for light-water pressurised water reactor in operation.

On September 7, Taishan Unit 2 commenced commercial operation. Taishan Units 1 and 2 became the world's first two EPR units put into commercial operation.

### Units under construction

On October 10, Hongyanhe Unit 5 entered the commissioning phase.

On December 26, Huizhou Unit 1 managed by the Company as entrusted by CGNPC, the controlling shareholder of the Company, commenced construction.

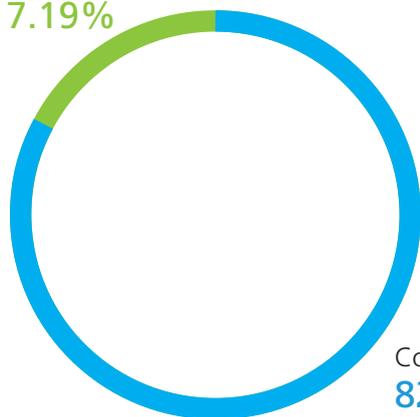
### Other important events

On March 20, the National Development and Reform Commission (the "NDRC") approved the trial on-grid tariff for planned generation of Taishan units, which is set at RMB0.4350/kWh (tax inclusive) effective from the date of production commencement to the end of 2021.

# Business at a glance for the year

## Key Data for 2019

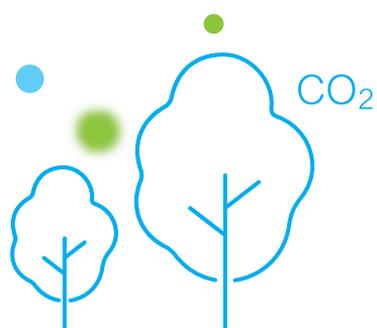
Non-controlling  
17.19%



Controlling  
82.81%

On-grid power generation:

**178,969.73** Gwh



**Emission  
reduction  
contribution:**

Reduction of standard coal  
consumption of approximately

**15,051** ten  
thousand  
tons

of CO<sub>2</sub> emission for on-grid  
power generation (including our  
associates) in 2019

**24 generating units in  
operation**

with an installed capital of **27,142MW**



**5 generating units  
under construction** <sup>Note</sup>

with an installed capital of **5,800MW**



Note: Including Huizhou Unit 1 managed by the Company as entrusted by the controlling shareholder.

Revenue RMB

60,875.18 million,

increasing from 2018 by

19.8% ↑



Dividend

Dividend per Share  
RMB

0.076 (tax inclusive)



Earnings before interest, tax, depreciation and amortization (EBITDA)

RMB

34,886.44 million,

increasing from 2018 by

20.2% ↑



Earnings before interest, tax, depreciation and amortization (EBITDA)

(excluding the effect of non-recurring gains or losses)

RMB

34,401.73 million,

increasing from 2018 by

19.0% ↑

Net profit attributable to shareholders of the parent company

RMB

9,465.70 million,

increasing from 2018 by

8.8% ↑



## Financial Highlights

### Highlights of consolidated income statement

	2019	Year ended December 31,			
		2018	2017 Restated <sup>1</sup>	2016 Restated <sup>1</sup>	2015 Restated <sup>2</sup>
Operating revenue	60,875,176,254.90	50,827,919,184.43	45,633,453,920.64	33,026,794,633.05	26,839,713,787.24
Operating costs	35,471,460,119.46	28,503,854,609.56	25,185,044,094.56	18,085,009,626.58	14,275,656,077.64
Total profit	16,555,095,116.02	14,899,475,758.39	14,168,259,389.83	9,846,020,543.70	8,936,056,677.76
Net profit	14,785,240,122.64	13,681,677,330.13	12,724,187,560.67	9,119,329,157.26	7,960,075,688.70
Net profit attributable to shareholders of the parent company	9,465,700,355.79	8,702,632,650.82	9,564,092,697.56	7,364,426,999.05	6,647,843,787.99
Non-controlling interests	5,319,539,766.85	4,979,044,679.31	3,160,094,863.11	1,754,902,158.21	1,312,231,900.71

### Highlights of consolidated balance sheet

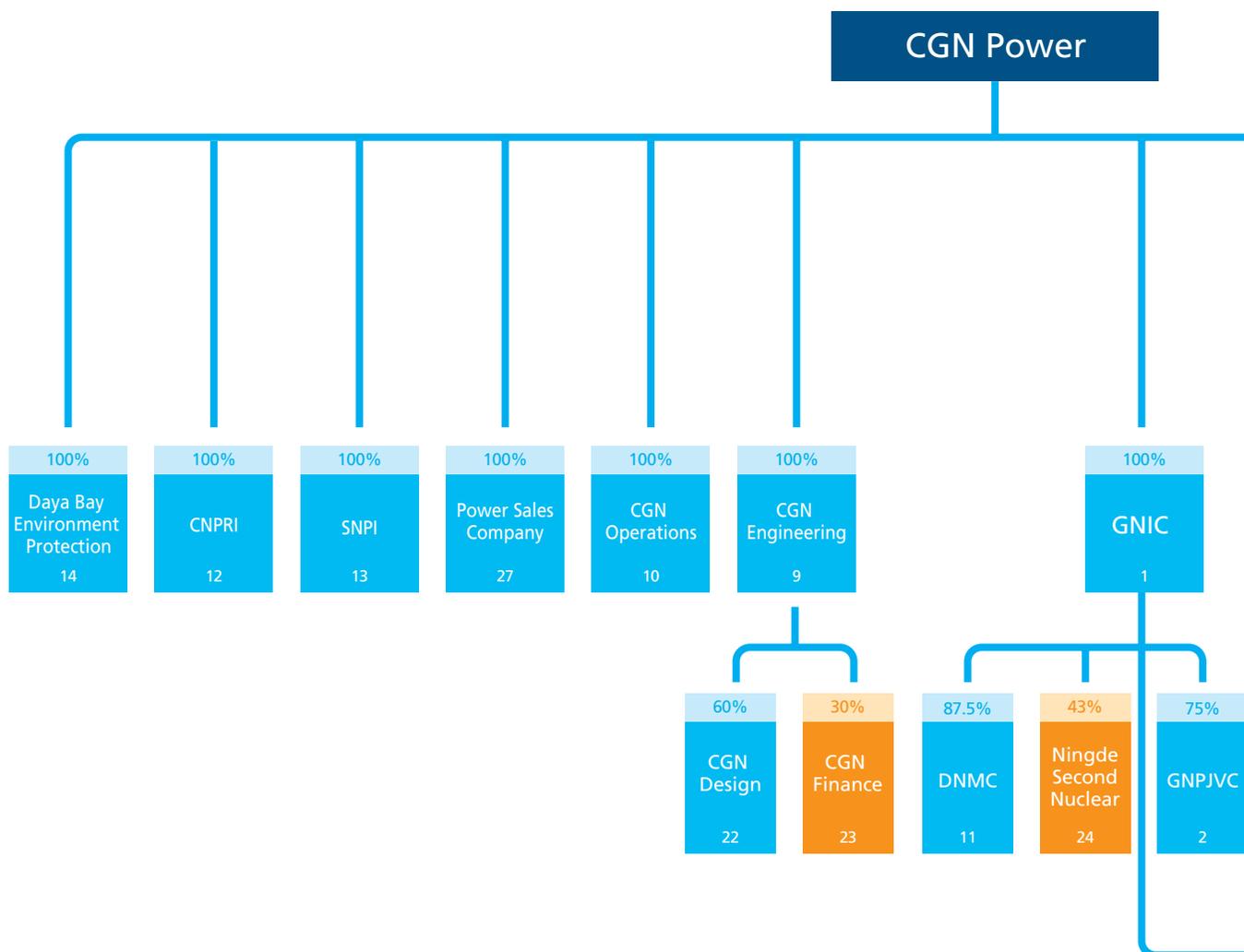
	2019	December 31,			
		2018	2017 Restated <sup>1</sup>	2016 Restated <sup>1</sup>	2015 Restated <sup>2</sup>
Total current assets	61,923,383,290.30	55,387,916,293.85	55,904,651,132.70	43,640,765,941.51	44,945,317,558.41
Total non-current assets	326,051,851,236.49	313,167,754,066.43	301,395,905,627.54	241,582,275,663.02	223,461,734,337.77
Total assets	387,975,234,526.79	368,555,670,360.28	357,300,556,760.24	285,223,041,604.53	268,407,051,896.18
Total current liabilities	67,017,899,711.71	60,625,091,431.14	60,426,174,675.40	65,128,192,842.15	43,907,836,808.38
Total non-current liabilities	185,663,467,323.62	194,804,928,821.93	195,975,171,862.53	140,067,032,861.98	141,519,301,567.40
Total liabilities	252,681,367,035.33	255,430,020,253.07	256,401,346,537.93	205,195,225,704.13	185,427,138,375.78
Total equity attributable to shareholders of the parent company	89,801,976,064.25	71,114,915,512.70	64,848,470,381.92	55,454,459,497.37	59,423,441,780.00
Non-controlling interests	45,491,891,427.21	42,010,734,594.51	36,050,739,840.39	24,573,356,403.03	23,556,471,740.40
Total shareholders' equity	135,293,867,491.46	113,125,650,107.21	100,899,210,222.31	80,027,815,900.40	82,979,913,520.40
Total liabilities and shareholders' equity	387,975,234,526.79	368,555,670,360.28	357,300,556,760.24	285,223,041,604.53	268,407,051,896.18

1 The Company acquired subsidiaries under common control in 2018. Therefore, the consolidated income statement for 2017 and 2016 and the consolidated balance sheet as at December 31, 2017 and December 31, 2016 of the Company and its subsidiaries (the "Group") were restated.

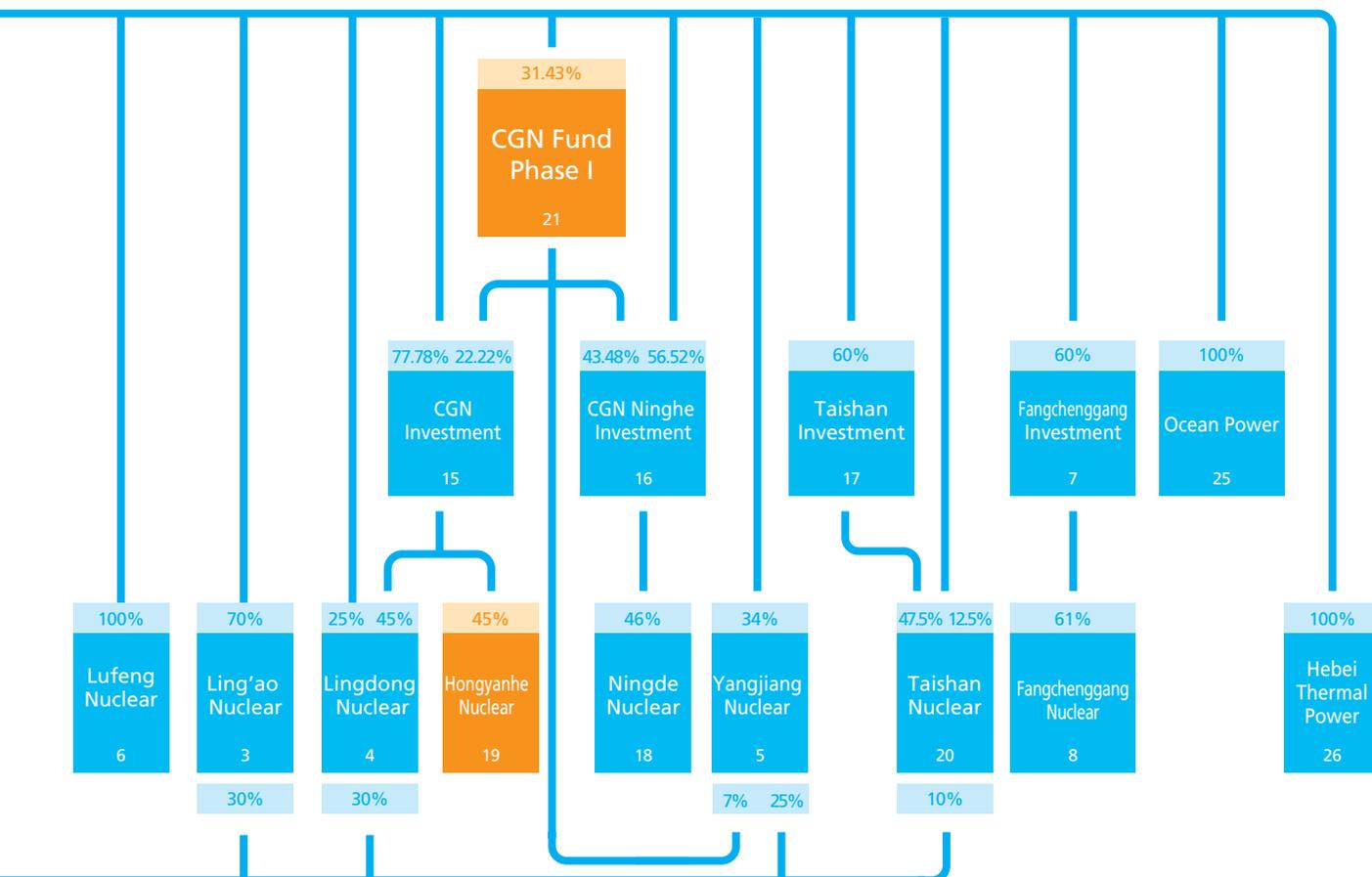
2 Since the Company acquired subsidiaries under common control in 2016, the consolidated income statement for 2015 and the consolidated balance sheet as at December 31, 2015 of the Group had been restated.

# Business at a glance for the year

100%	1	<p><b>Guangdong Nuclear Power Investment Co., Ltd. (廣東核電投資有限公司) ("GNIC")</b></p> <p>GNIC was established in the PRC on August 18, 1983 and converted into a limited liability company on March 20, 2014. GNIC is a wholly-owned subsidiary of the Company.</p>
75%	2	<p><b>Guangdong Nuclear Power Joint Venture Co., Ltd. (廣東核電合營有限公司) ("GNPJVC")</b></p> <p>GNPJVC is a Sino-foreign joint venture company established in the PRC on January 26, 1985 with 75% of its equity interests held by GNIC and the remaining 25% by Hong Kong Nuclear Investment Co., Ltd. (香港核電投資有限公司) ("HKNIC"). GNPJVC owns Daya Bay Nuclear Power Station.</p>
100%	3	<p><b>Ling'ao Nuclear Power Co., Ltd. (嶺澳核電有限公司) ("Ling'ao Nuclear")</b></p> <p>Ling'ao Nuclear is a limited liability company established in the PRC on October 4, 1995 with 70% and 30% of its equity interests held by the Company and GNIC, respectively. Ling'ao Nuclear owns Ling'ao Nuclear Power Station.</p>
93.14%	4	<p><b>Lingdong Nuclear Power Co., Ltd. (嶺東核電有限公司) ("Lingdong Nuclear")</b></p> <p>Lingdong Nuclear is a limited liability company established in the PRC on September 15, 2004 with 25%, 30% and 45% of its equity interests held by the Company, GNIC and CGN Investment, respectively. Lingdong Nuclear owns Lingdong Nuclear Power Station.</p>
61.20%	5	<p><b>Yangjiang Nuclear Power Co., Ltd. (陽江核電有限公司) ("Yangjiang Nuclear")</b></p> <p>Yangjiang Nuclear is a limited liability company established in the PRC on February 23, 2005 with 34%, 25% and 7% of its equity interests held by the Company, GNIC and CGN Fund Phase I, respectively, and the remaining 17% and 17% by Guangdong Energy Group Co., Ltd. and CLP Nuclear Power (Yangjiang) Limited, respectively. Yangjiang Nuclear owns Yangjiang Nuclear Power Station.</p>
100%	6	<p><b>CGN Lufeng Nuclear Power Co., Ltd. (中廣核陸豐核電有限公司) ("Lufeng Nuclear")</b></p> <p>Lufeng Nuclear is a limited liability company established in the PRC on February 20, 2008 and a wholly-owned subsidiary of the Company.</p>
60%	7	<p><b>Guangxi Fangchenggang CGN Nuclear Power Industry Investment Co., Ltd. (廣西防城港中廣核核電產業投資有限公司) ("Fangchenggang Investment")</b></p> <p>Fangchenggang Investment is a limited liability company established in the PRC on January 10, 2018 with 60% and 40% of its equity interests held by the Company and Shenzhen Guotong Clean Energy Partners Corporation (Limited Partnership) (深圳國同清潔能源合夥企業(有限合夥)) ("Shenzhen Guotong"), respectively.</p>
36.6%	8	<p><b>Guangxi Fangchenggang Nuclear Power Co., Ltd. (廣西防城港核電有限公司) ("Fangchenggang Nuclear")</b></p> <p>Fangchenggang Nuclear is a limited liability company established in the PRC on September 3, 2008 with 61% and 39% of its equity interests held by Fangchenggang Investment and Guangxi Guang Tou Energy Co., Ltd. (廣西廣投能源有限公司), respectively. Fangchenggang Nuclear owns Fangchenggang Nuclear Power Station.</p>
100%	9	<p><b>China Nuclear Power Engineering Co., Ltd. (中廣核工程有限公司) ("CGN Engineering")</b></p> <p>CGN Engineering is a limited liability company established in the PRC on November 11, 1997 and a wholly-owned subsidiary of the Company.</p>
100%	10	<p><b>China Nuclear Power Operations Co., Ltd. (中廣核核電運營有限公司) ("CGN Operations")</b></p> <p>CGN Operations is a limited liability company established in the PRC on August 3, 2012 and a wholly-owned subsidiary of the Company.</p>
87.5%	11	<p><b>Daya Bay Nuclear Power Operations and Management Co., Ltd. (大亞灣核電運營管理有限責任公司) ("DNMC")</b></p> <p>DNMC is a limited liability company established in the PRC on March 12, 2003 with 87.5% of its equity interests held by GNIC and the remaining 12.5% by CLP Nuclear Power Operations &amp; Management (China) Limited (中電核電運營(中國)有限公司), respectively.</p>
100%	12	<p><b>China Nuclear Power Technology Research Institute Co., Ltd. (中廣核研究院有限公司) ("CNPRI")</b></p> <p>CNPRI is a limited liability company established in the PRC on November 8, 2006 and a wholly-owned subsidiary of the Company.</p>
100%	13	<p><b>Suzhou Nuclear Power Research Institute (蘇州熱工研究院有限公司) ("SNPI")</b></p> <p>SNPI was established in the PRC on May 13, 1978 and converted into a limited liability company on July 7, 2003. SNPI is a wholly-owned subsidiary of the Company.</p>
100%	14	<p><b>Guangdong Daya Bay Nuclear Power Environment Protection Co., Ltd. (廣東大亞灣核電環保有限公司) ("Daya Bay Environment Protection")</b></p> <p>Daya Bay Environment Protection is a limited liability company established in the PRC on January 7, 2002 and a wholly-owned subsidiary of the Company.</p>
84.76%	15	<p><b>CGN Nuclear Power Investment Co., Ltd. (中廣核核電投資有限公司) ("CGN Investment")</b></p> <p>CGN Investment is a limited liability company established in the PRC on October 11, 2011 with 77.78% and 22.22% of its equity interests held by the Company and CGN Fund Phase I, respectively.</p>



70.19%	16	<p><b>CGN Ninghe Investment Co., Ltd. (中廣核寧核投資有限公司) ("CGN Ninghe Investment")</b></p> <p>CGN Ninghe Investment is a limited liability company established in the PRC on October 11, 2011 with 56.52% and 43.48% of its equity interests held by the Company and CGN Fund Phase I, respectively.</p>
60%	17	<p><b>Taishan Nuclear Power Industry Investment Co., Ltd. (台山核電產業投資有限公司) ("Taishan Investment")</b></p> <p>Taishan Investment is a limited liability company established in the PRC on December 8, 2011 with 60% of its equity interests held by the Company and the remaining 40% by Guangdong Energy Group Co., Ltd.</p>
32.29%	18	<p><b>Fujian Ningde Nuclear Power Co., Ltd. (福建寧德核電有限公司) ("Ningde Nuclear")</b></p> <p>Ningde Nuclear is a limited liability company established in the PRC on March 23, 2006 with 46% of its equity interests held by CGN Ninghe Investment and the remaining 44% and 10% by Datang International Power Generation Co., Ltd. (大唐國際發電股份有限公司) and Fujian Energy Group Co., Ltd. (福建省能源集團有限責任公司), respectively. Ningde Nuclear owns Ningde Nuclear Power Station.</p>
38.14%	19	<p><b>Liaoning Hongyanhe Nuclear Power Co., Ltd. (遼寧紅沿河核電有限公司) ("Hongyanhe Nuclear")</b></p> <p>Hongyanhe Nuclear is a limited liability company established in the PRC on August 28, 2006 with 45% of its equity interests held by CGN Investment, and the remaining 45% and 10% by CPI Investment Nuclear Power Co., Ltd. (中電投核電有限公司) and Dalian Construction Investment Co., Ltd. (大連市建設投資集團), respectively. Hongyanhe Nuclear owns Hongyanhe Nuclear Power Station. Hongyanhe Nuclear is an associate of the Company.</p>
51%	20	<p><b>Taishan Nuclear Power Joint Venture Co., Ltd. (台山核電合營有限公司) ("Taishan Nuclear")</b></p> <p>Taishan Nuclear is a limited liability company established in the PRC on July 5, 2007 with 12.5% of its equity interests held by the Company, 10% by GNIC, 47.5% by Taishan Investment, and the remaining 30% by EDF International and its subsidiary EDF (China) Holding Ltd. Taishan Nuclear owns Taishan Nuclear Power Station.</p>
31.43%	21	<p><b>CGN Industry Investment Fund Phase I Co., Ltd. (中廣核一期產業投資基金有限公司) ("CGN Fund Phase I")</b></p> <p>CGN Fund Phase I is a limited liability company established in the PRC on June 30, 2010 with 31.43% of its equity interests held by the Company, and the remaining 28.57%, 20%, 7.39%, 7.14% and 5.47% by Three Gorges Capital Holdings Co., Ltd., BOC Investment Asset Management Co., Ltd. (中銀投資資產管理有限公司), China Development Bank Jingcheng (Beijing) Investment Fund Co., Ltd. (國開精誠(北京)投資基金有限公司), China Development Bank Capital Corporation Ltd. (國開金融有限責任公司) and China Development Bank Siyuan (Beijing) Investment Fund Co., Ltd. (國開思遠(北京)投資基金有限公司), respectively. CGN Fund Phase I is an associate of the Company.</p>



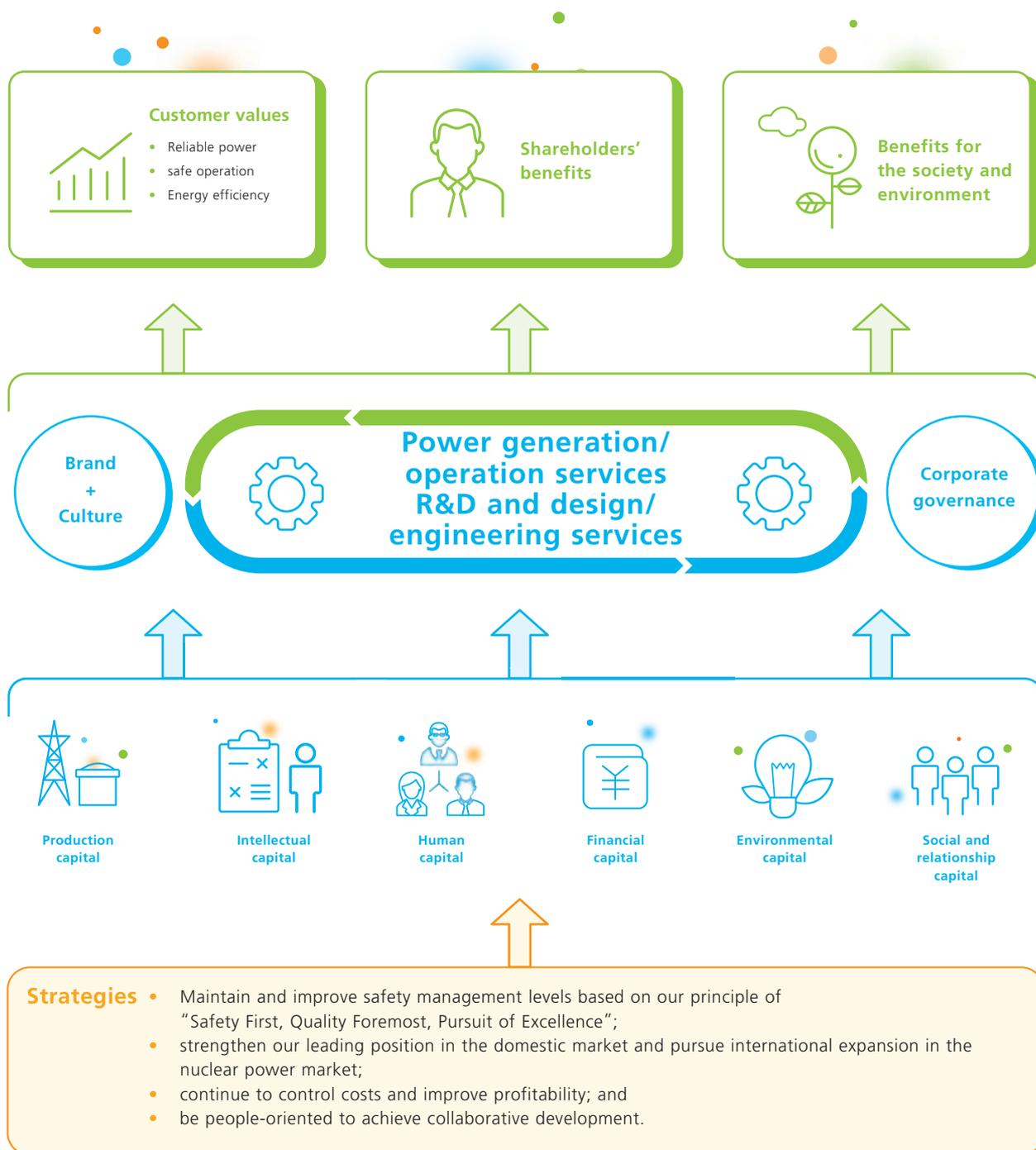
60%	22	<p><b>China Nuclear Power Design Co., Ltd. (Shenzhen) (深圳中廣核工程設計有限公司) ("CGN Design")</b></p> <p>CGN Design is a limited liability company established in the PRC on May 18, 2005 with 60% of its equity interests held by CGN Engineering and the remaining 40% by China Energy Engineering Group Guangdong Electric Power Design Institute Co., Ltd. (中國能源建設集團廣東省電力設計研究院有限公司)</p>
30%	23	<p><b>CGN Finance Co., Ltd. (中廣核財務有限責任公司) ("CGN Finance")</b></p> <p>CGN Finance is a limited liability company established in the PRC on July 22, 1997 with 30% of its equity interests held by CGN Engineering and the remaining 66.66% and 3.34% by CGNPC and CGN Services Group Co., Ltd. ("CGN Services Group"), respectively. CGN Finance is an associate of the Company</p>
43%	24	<p><b>Fujian Ningde Second Nuclear Power Co., Ltd. (福建寧德第二核電有限公司) ("Ningde Second Nuclear")</b></p> <p>Ningde Second Nuclear is a limited liability company established in the PRC on December 9, 2016 with 43% of its equity interests held by GNIC and the remaining 47% and 10% by Datang Corporation Nuclear Power Company Limited (大唐集團核電有限公司) and Funeng Co., Ltd. (福能股份有限公司), respectively. Ningde Second Nuclear is an associate of the Company.</p>
100%	25	<p><b>CGN Ocean Power Co., Ltd. (中廣核海洋能源有限公司) ("Ocean Power")</b></p> <p>Ocean Power is a limited company established in the PRC on September 10, 2015 and a wholly-owned subsidiary of the Company.</p>
100%	26	<p><b>CGN Hebei Thermal Power Co., Ltd. (中廣核河北熱電有限公司) ("Hebei Thermal Power")</b></p> <p>Hebei Thermal Power is a limited company established in the PRC on June 17, 2016 and a wholly-owned subsidiary of the Company.</p>
100%	27	<p><b>CGN Power Sales Co., Ltd. (中廣核電力銷售有限公司) ("Power Sales Company")</b></p> <p>Power Sales Company is a limited company established in the PRC on November 10, 2015 and a wholly-owned subsidiary of the Company.</p>

Note: The above details were those of the major subsidiaries and affiliates of the Company as of December 31, 2019.

# Business at a glance for the year

## Business Model

The core business of the Company focuses on nuclear power-based electricity supply and services. Through years of NPP construction and operation management, we have accumulated capital in areas such as production capital, intellectual capital, human capital, financial capital, environmental capital and social and relationship capital. Through continuous investment in various forms of capital, we have created the best benefits for our customers, shareholders, employees and the society.



# Chairman's Statement

Dear shareholders,

In 2019, despite the complex situation with significantly increasing internal and external risks and challenges, the Company maintained steady operation and achieved decent business results. We put two new units into operation and the number of nuclear power units in operation under our management reached 24 with a total installed capacity of approximately 27.14 GW, accounting for 55.7% of the total nuclear power installed capacity in operation in the People's Republic of China (the "PRC"). Revenue of the Group for the year was approximately RMB60,875 million, representing an increase of 19.8% over 2018. Net profit attributable to shareholders of the parent company was approximately RMB9,466 million, representing an increase of 8.8% over 2018. Based on the earnings for the year, the board of directors of the Company (the "Board") recommended a payment of a dividend of RMB0.076 (tax inclusive) per share for the year, representing an increase of 5.6% as compared with RMB0.072 (tax inclusive) per share in 2018.

In 2019, the global economic growth continued to slow down. The domestic economy was generally stable but downward pressure had increased. Coupled with the slowdown in the growth of power demand in the PRC, and the further advancement in market-based power reform, the complicated and changing external environment posed greater challenges to the development of the whole power industry, bringing greater pressure to the operation of the Company. It was not easy for us to achieve such results in the face of a variety of challenges, attributing to the concerted efforts of all our staff and the full support from relevant parties such as shareholders, customers, business partners and relevant ministries and commissions of the State. On behalf of the Board, I would like to take this opportunity to express my heartfelt gratitude to all shareholders and our supporters from all walks of life who have led us along the way!



## Honoring Tradition while Striving for Innovation, Forging Ahead to Start a New Chapter



According to the Emissions Gap Report 2019 published by the United Nations Environment Programme (UNEP), global greenhouse gas emissions had continued to grow at an annual rate of 1.5% over the past decade. In particular, carbon dioxide emissions from the use of fossil energy and industrial processes had been the main sources of greenhouse gas emissions. The PRC's Policies and Actions for Addressing Climate Change 2019 《中國應對氣候變化的政策與行動2019年度報告》 pointed out that PRC's response to climate change had achieved significant results. China will continue to take measures to put its commitments of nationally-determined contributions into practice, and integrate the measures to address climate change into the national economic and social development planning.

The predictions from the world's major energy and nuclear energy agencies all pointed out that nuclear power, as the only stable low-carbon energy source that could replace fossil energy on a large scale at present, has become more prominent in optimizing the world's primary energy consumption structure and improving the environment. The Report on the Development of the PRC's Nuclear Energy 2019 published by the China Nuclear Energy Association stated that nuclear power is a rational and realistic choice to achieve the clean and low-carbon energy development in the PRC. It is predicted that nuclear power generation will account for approximately 10% of the power generation across the country in 2035. In December 2019, China Nuclear Power Development Center under the National Energy Administration and State Grid Energy Research Institute Co., Ltd. released the Research on the PRC's Nuclear Power Development Planning 《我國核電發展規劃研

究)), which also pointed out that under the benchmark scheme, nuclear power generation will account for 13.5% of the total power generation in the PRC in 2035. In 2019, the nuclear power generation in the PRC accounted for less than 5%. In order to optimize the national energy structure and increase the share of clean energy, we believe that nuclear power still has larger room for development.

In 2019, three new nuclear power projects commenced construction in the PRC one after another, including the Huizhou Nuclear Power Project owned by our controlling shareholder CGNPL. We believe that the PRC will continue to approve new nuclear power projects step by step according to the nuclear power development strategy, and the Company has actively carried out relevant preparations.

With the deepening reform of the power market, the amount of nuclear power participating in market transactions has increased year by year, and the power market has presented severe challenges to the economical efficiency, construction and operation of nuclear power enterprises. In recent years, the national economy has entered a new norm, and the growth of the demand for electricity in the PRC has slowed down, which has brought continuous pressure on the consumption of clean energy including nuclear power. We have paid much attention to the external challenges encountered by the Company during its operations and actively analyze and respond to major risks. The economy in the PRC remained stable, and sustained long-term good prospects. The Board required our management to stay focused, maintain the foundation of nuclear power safe operation and engineering construction, further improve our core competitiveness and ensure that the Company can adapt to market changes and seize market opportunities in a timely manner.

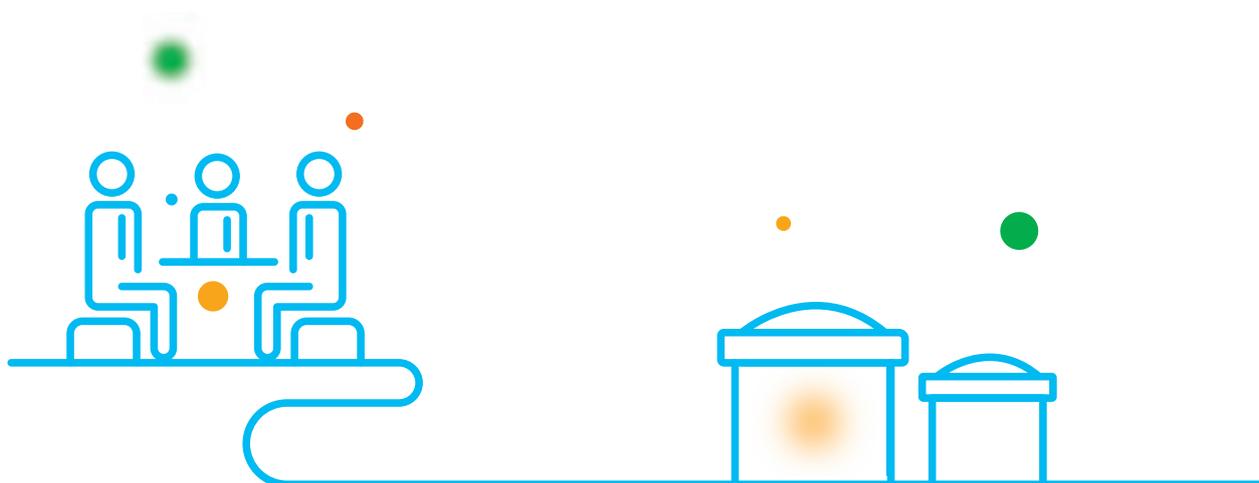
In 2019, both our Yangjiang Unit 6 and Taishan Unit 2 commenced commercial operations, marking the full completion of the Yangjiang Nuclear Power Project and the Taishan Nuclear Power Phase I Project. The operation of the two third-generation EPR units at Taishan Nuclear successively

commenced. Upon commencement of operation, both units maintained safe and stable operation. We also gained a lot of valuable experience that can be shared with industry peers at home and abroad, especially the experience in nuclear power projects with the first reactor, which can also provide reference for large-scale construction projects and large-scale international cooperation projects with R&D characteristics in the management aspect.

On August 26, 2019, the Company completed the offering and listing of A shares with net proceeds of approximately RMB12,390 million. The proceeds were all used for the construction of Yangjiang Units 5 and 6, and Fangchenggang Units 3 and 4, and the replenishment of working capital, which effectively reduced our financial costs, guaranteed the investment and construction of our nuclear power projects, while reducing project costs and improving the economical efficiency of projects.

After the listing of A shares, CGN Power has become the first nuclear power enterprise in the PRC with its shares listed on both A-share and H-share markets. In strict compliance with the regulatory requirements in the places where the shares of the Company are listed, we will continue to improve corporate governance and operation management under the supervision of the places where the shares of the Company are listed, laying a solid foundation for the Company's consistent high-quality development.

The Board has always attached great importance to ESG management. Since 2015, we have regularly published an ESG report every year, which has given a detailed illustration of our efforts and achievements in respect of ESG. In 2019, we communicated with international ESG rating agencies, compared our indicators with our industry peers, and identified our weaknesses in ESG management and disclosures. We also established a dedicated ESG improvement team to further improve our ESG management and strengthen the disclosure of ESG information, so as to help our investors to better understand our ESG performance.



# Chairman's Statement

At the beginning of 2020, there was an outbreak of the novel coronavirus pneumonia in the PRC, and people of the whole country united together to combat the epidemic. As a power generation enterprise, it is our primary responsibility to ensure safe production and secure stable power supply. During the epidemic period, all of our NPPs in operation continued to operate as normal. Except for certain units that were shut down as requested by the power grids or undergoing refueling outages as planned, other units in operation maintained safe and stable operation, ensuring safe and reliable power supply. At the same time, we also took the initiative to assume social responsibilities. While ensuring safe production, the Company and various nuclear power bases have provided appropriate assistance such as protective supplies to the local governments and hospitals in Wuhan City, Hubei Province, and where the nuclear power bases are located. During this epidemic period, the demand for electricity in society declined, which affected the utilization rate of nuclear power generating units to a certain extent. As the epidemic situation was under control with gradual relief, the utilization rates of units tended to improve. With respect to economic construction, the PRC government successively introduced safeguard measures for corporate operations. Moreover, this epidemic would have some impacts on the Company's annual operating performance. However, we believe that with the support of governments at all levels and through the joint efforts of all employees of the Company, we can minimize the impacts of the epidemic.

2020 is the decisive year for the PRC to build a moderately prosperous society in all respects and achieve the goal for the first centenary. It is also the last year of the 13th Five-Year Plan (2016-2020), and the year of making plans for the 14th Five-Year Plan (2021-2025). The external environment may become more complicated. Our task will also be more challenging. Facing the future, we will closely track the changes in the external environment, and make active responses and serious plans to seize development opportunities. We will also improve in aspects such as safety and quality, technological innovation, and corporate governance in an all-round way, while putting corporate social responsibility into practice and maintaining high quality and steady development, so as to return to the shareholders with stable operation results and strive to become a world-class nuclear power supplier and service provider with international competitiveness to start a new chapter.

**Gao Ligang (Acting)**

**Chairman**

March 25, 2020

# President's Review

In 2019, with the number of nuclear power units in operation managed by CGN Power reaching 24 units, we have achieved the Company's planned annual target in a satisfactory manner. I will present a summary of the key work and performance of the Company in all areas for the year and outline the major plans for the next year. The detailed analysis of the Company's business is set forth in the relevant sections of this Annual Report.

## Safety Management

Safety is crucial to any company. Nuclear safety is the cornerstone of the Company's existence and development, and we make nuclear safety our highest priority. We always adhere to the concept of "Nuclear Safety is Paramount" and the basic principles of "Safety First, Quality Foremost, Pursuit of Excellence". The number of units in operation under our management increased year by year, which has continued to increase our responsibility for safety management. Quality is indispensable to safety. Adhering to the core value of "Doing Things Right in One Go" with a meticulous and excellence work attitude, we regarded quality improvement as the focus throughout the year and strengthened the development of quality culture, and got work done in place in pursuit of "zero mistakes, zero error". In the meantime, we also extended the responsibilities and measures for safety management to the upstream and downstream of the industry chain, in order to, in cooperation with our partners, ensure the safety and quality of nuclear power at all stages from construction to operation.

The emphasis on safety must be reflected in the general awareness and behavior. Nuclear safety culture needs to be both internalized and externalized. The construction of nuclear safety culture is an inevitable path to achieving this goal. In 2019, on the basis of practical experience of nuclear safety culture construction in the last three decades, we released the "Guidelines for the Construction of a Nuclear Safety Culture" ("核安全文化建設指導方案") (the "Guidelines"), which clarified our basic attitude towards nuclear safety culture, as well as the principles and requirements for fostering and putting nuclear safety culture into practice, aiming at advancing the construction of a nuclear safety culture in an institutionalized manner to improve the overall nuclear safety culture of the Company and strive to further enhance the nuclear power safety results by actively learning from the experience of successful international nuclear safety cultural development and constantly highlighting the Company's internal good practices.

In 2019, our safety management system operated effectively. Throughout the year, no Level 2 or above event under the International Nuclear and Radiological Event Scale (《國際核事件分級表》) (the "INES") set by the International Atomic Energy Agency ("IAEA") occurred in the 24 units in operation. Take the Yangjiang Nuclear Power Base as an example. All six units at the Yangjiang Nuclear Power Base were put into operation in 2019. Upon commencement of production of Yangjiang Unit 1, the "Industrial Safety Accident Rate" of Yangjiang Nuclear Power's operating nuclear power units remained at zero for six consecutive years, continuing to fall into the category of excellence under the World Association of Nuclear Operators ("WANO") indicators. At no time does safety management allow satisfaction or negligence. We must stay alert and pursue excellence in our safety management.

# President's Review

## Operation Management

All the operating units achieved safe and stable operation during the year. We primarily compared our level of nuclear power management with our counterparts based on the rank of performance indicators of WANO. In 2019, 76.4% of the indicators among the 24 operating units of the Company achieved top 1/4 worldwide (advanced level), with 72.2% achieving top 1/10 worldwide (excellent level). Among the twelve indicators for units participated in the evaluation, "Capacity Factor" best reflects the unit's operation and maintenance performance. In 2019, the average capacity factor of the 24 nuclear power units in operation of the Company exceeded 92%. Ling'ao Unit 1 has been operating without unplanned reactor shutdown for over 4,953 days. That is to say, it operated safely and stably for 14 years. The improvement in such performance indicators despite the number of operating units continuing to rise served as a testament to the effectiveness of our management strategy of "specialization, centralization and standardization" ("SCS") which we have adhered to in recent years. Our ability to manage and control multiple units is being constantly enhanced through practice.

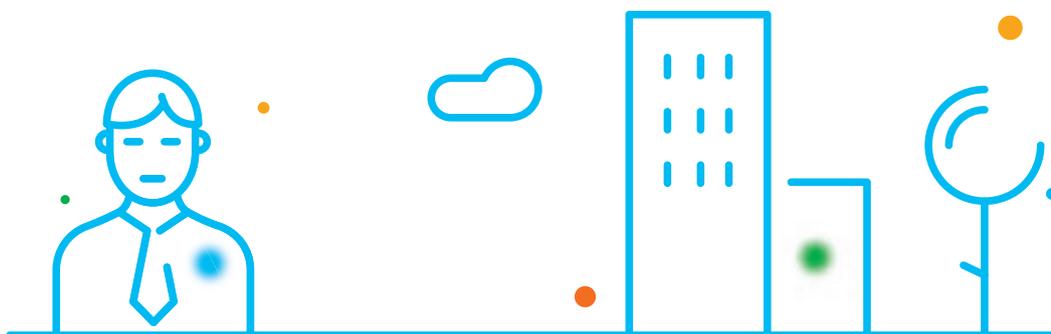
While the external environment is complex and ever-changing, we firmly believe that only through quality nuclear power operation and management, and maintaining safe and stable operation of the units at all times as per the Board's requirement can we seize the opportunities brought forth by the shifting market, and provide safe, reliable and economical clean energy for the society.

In 2019, we completed 19 refueling outages, increasing by six or approximately 50% from 2018, including one initial refueling outage and multiple refueling outages which were highly overlapped. On the premise of safety and quality, we continuously optimized and carefully organized, and successfully completed all refueling outages as planned. In the meantime, the average duration of refueling outages continued to improve. We had

anticipated the significant increase in number of refueling outages along with the increase in operating units years ago, therefore we have continuously implemented an outage optimization strategy in terms of management, technology and other areas. Practice has proven the effectiveness of the strategy to certain extent. The enhancement in our refueling outage capacity and optimization of the outage duration enabled us to better adapt to the changes in the power market and seize opportunities that may arise.

In 2019, the electricity consumption in the PRC recorded a year-on-year increase of 4.5%, and the growth was significantly slower as compared with 2018. Despite the promulgation of policies in respect of clean energy power consumption, the Company's electricity sales remained challenging. Nuclear power has the advantage of low marginal cost, therefore we focus on on-grid power generation, as well as more planned and market-based power generation through various means. We also focus on the development of incremental markets and strive to improve unit utilization rate. In 2019, we achieved on-grid power generation of 178,969.73 GWh, an increase of 14.0% over 2018. The market-based electricity accounted for approximately 32.9% of the on-grid power generation. Fangchenggang Nuclear and Hongyanhe Nuclear actively participated in local market power transactions, resulting in higher on-grid power generation than previous years.

We also paid close attention to electricity tariff. In March 2019, the trial on-grid tariff for planned generation of Taishan Units 1 and 2 were set by the state at RMB0.4350/kWh (tax inclusive). Under the effect of the reduction of the national VAT rate, on-grid tariffs (tax inclusive) for planned generation of units other than Taishan Units 1 and 2 have been lowered, which had certain impact on our gains in VAT refunds. With the maturity of the market-based power transactions, market-based transactional electricity tariff has gradually stabilized. Our integrated electricity tariff of market-based power generation volume for the full year represented a slight improvement over 2018.



Upholding  
a rigorous and  
pragmatic attitude  
and striving for  
excellence



# President's Review

## Construction Project

In 2019, both Yangjiang Unit 6 and Taishan Unit 2 commenced commercial operation as planned. Since then, both units operated in good condition and our original high quality production target was met.

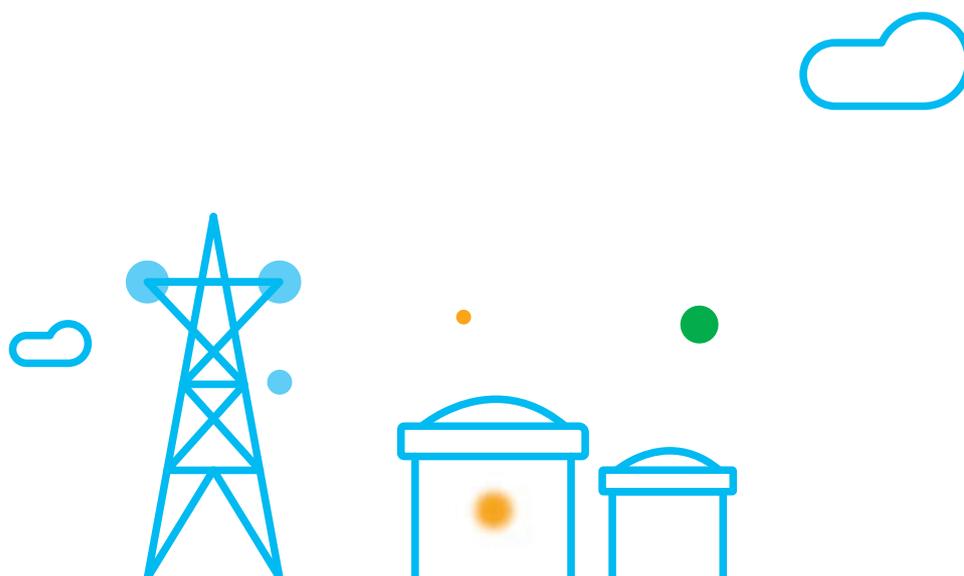
Currently, we have five units under construction, including Huizhou Unit 1, which is managed by the Company as entrusted by CGNPC, and have commenced construction on December 26, 2019. As a result of external environment changes, we decided to adequately delay the expected commencement of operation of Hongyanhe Units 5 and 6 after prudent evaluation. The remaining projects under construction are advancing steadily as planned.

The cost of a nuclear power project is significant to its whole-cycle economy, therefore we attach great importance to cost control of project. In the context of significant increase in labor costs and prices in recent years, there was an increased pressure on cost control of project. We continued to implement lean management in 2019, and kept the project cost at a reasonable level through technological and management innovations. The delay of a project may also exert pressure on cost control, but we believe that excessive pursuit of progress may bring hidden safety and quality risks, which in turn damage project construction much if safety and quality problems occur. In that sense, we continued to adhere to "Safety First and Quality Foremost" and "Doing Things Right in One Go" in project management, so as to ensure to achieve the target of project implemented as planned and cost control target on the premise of ensuring safety and quality.

## R&D

Our technology R&D is aimed at helping us to achieve excellent performance and facilitating future development. We not only pay attention to the enhancement of safety, reliability and the economy brought about by the technology improvement of NPPs, but also value the mastery of technologies needed for future development, which will help with our future business expansion, market competition and sustainable development. We need to increase our investment in R&D and enhance our ability to master and apply key technologies.

We paid attention to the transformation and application of scientific research achievements, aiming to create greater value for the safety and economy of nuclear power operations. In 2019, the number of patents we have applied for reached 1,110, of which 744 obtained patent authorization, consolidating the foundation for the Company's innovation. The introduction and application of these scientific research results are explained in detail in the "Intellectual Capital" section of this Annual Report and our 2019 ESG Report.



## Future Outlook

The external environment is complex, and the Company still faces a great number of uncertainties in its future development and operation in 2020. According to the China Electricity Council (the “CEC”) forecast, power consumption will maintain steady growth in 2020, and the electricity consumption in the PRC is expected to be increased by 4% to 5%. However, due to the outbreak of COVID-19 pneumonia at the beginning of 2020, overall electricity consumption in the PRC for the year is likely to be lower than predicted. For example, after the Chinese New Year only a relatively small percentage of companies resumed operation, and electricity consumption demand in various regions was notably lower as compared with the corresponding period of previous years. Utilization rate of our nuclear power units decreased to a certain extent as compared with the corresponding period of previous years. As the resumption rate of enterprises in the PRC increased at the end of February, the demand for electricity also increased. On the whole, in this year we are facing a significantly higher level of pressure for operation than previous year. We will maintain our determination and strive to achieve stable and healthy operation of the Company with a prudent and pragmatic attitude in pursuit of our goal to achieve world-class level.

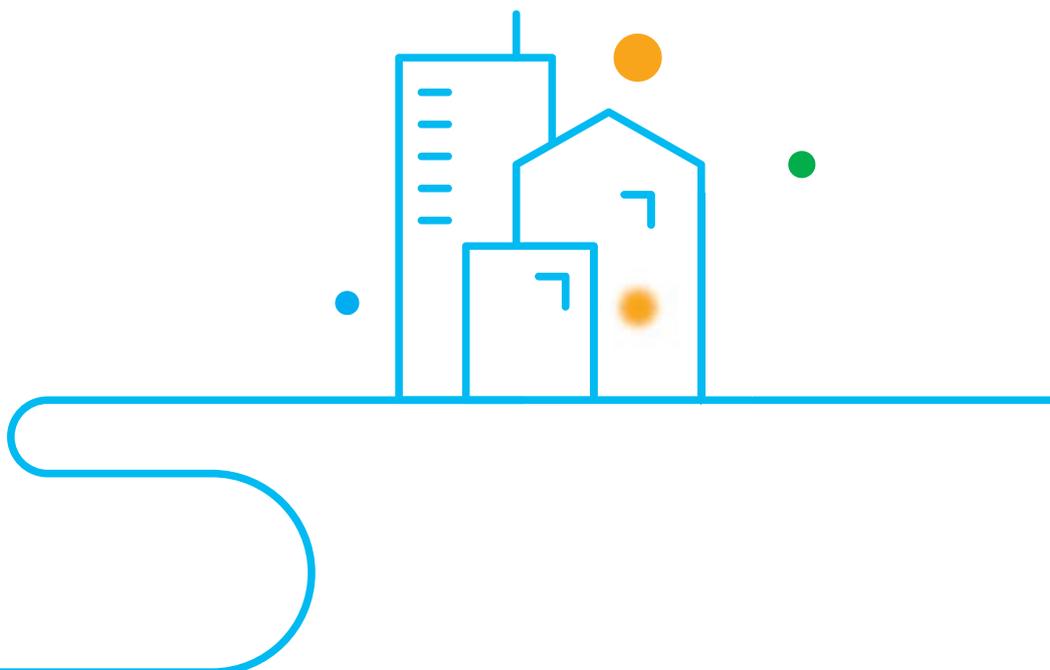
In 2020, the Company has no new units planned for commencing operation, which further urges us to focus on improving our own capabilities. We will continue to improve production safety, and ensure safe and stable operation of all nuclear power units

in operation. To address the increasingly mature power market, we will plan ahead, adapt proactively and actively seek to seize opportunities. The “full load power generation with favourable tariff” model for the Company’s nuclear power units in Guangdong province will end in 2020. By analyzing and researching carefully, actively communicating with relevant parties and exploring for a suitable power generation model, we will make due contributions to the Guangdong-Hong Kong-Macau Greater Bay Area. We will also need to continue to implement lean management, control nuclear power operation and maintenance costs, and fully realize the economical efficiency of nuclear power. In addition, we will continue to increase the investment in the R&D of new technologies, enhance our independent R&D and innovation capabilities and explore the application of new technologies, so we can adapt to the new technologies needed for future development of nuclear power.

In the future, we shall join hands with all partners to make new contributions to the PRC’s goal of building a moderately prosperous society in all respects!

**Gao Ligang**  
President

March 25, 2020



# Shareholder Value

The Board, the management and employees of the Company are responsible for and obliged to create value for the shareholders. As such, the Company will continue to maintain stable operational development and steady growth, while it will take an active and transparent approach with integrity, stay in close contact with its shareholders and safeguard the shareholders' trust and confidence on the Company with rewards to them.

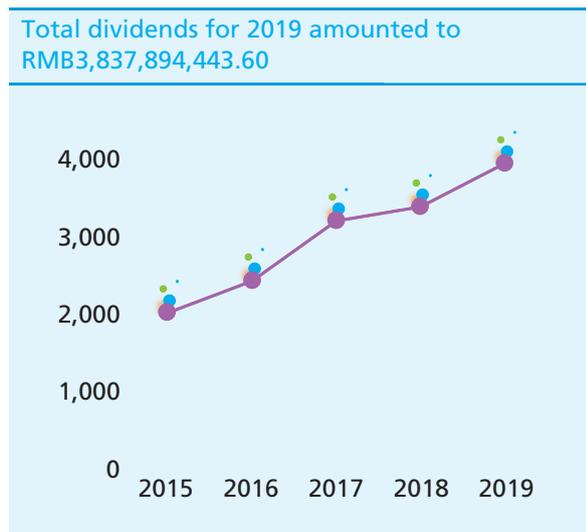
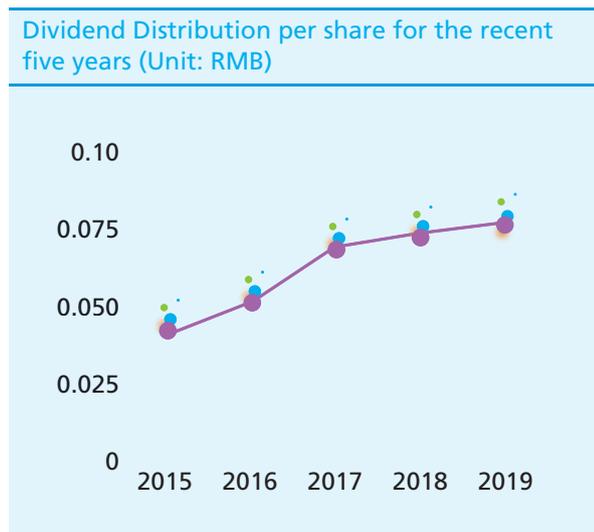
As at December 31, 2019, CGN Power had 488,366 registered shareholders, but the actual number of investors would be much greater if one takes into account individuals and institutions holding equity interests in the Company indirectly through intermediaries such as nominees, investment funds, the Hong Kong Central Clearing and Settlement System (CCASS), the Shanghai-Hong Kong Stock Connect, and the Shenzhen-Hong Kong Stock Connect.

## Dividend distribution

The final dividend for the year ended December 31, 2018 was RMB0.072 (tax inclusive) per share and the Company completed the distribution by May 31, 2019.

The Board has proposed to declare a final cash dividend of RMB0.076 (tax inclusive) per share for the year from January 1, 2019 to December 31, 2019 to our shareholders as of the record date of dividend payment. The final dividend of this year will be distributed after being approved by our shareholders at the 2019 annual general meeting of the Company and is expected to be distributed on or around July 10, 2020.

When considering the dividend distribution ratio in the future, we will take into consideration the business performance of the Company for the year, the future development strategies of the Company and other factors, provided that it shall not be lower than 30% of the net profit attributable to shareholders of the Company for the year. The Board and the management of the Company pay attention to providing its shareholders with steady and growing dividend. By attaching great importance to the safe and stable operation of nuclear power generating units and striving to achieve the stable growth of the Company's overall operation, the Company intends to achieve the target of maintaining a reasonable increase in dividend (subject to approval at the general meeting of the relevant financial year) for each of the three financial years of 2018, 2019 and 2020 based on the annual dividend per share for 2017.



Note: The final dividend from December 10, 2014 (i.e. the listing date of H shares of the Company) to the year ended December 31, 2014 was RMB0.0025 (tax inclusive) per share.

# Shareholders' Diary 2020



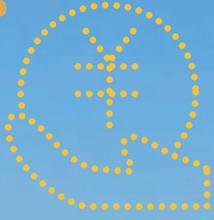
Note: Any changes to the above dates will be announced on the website of the Company.

# Finance, Assets and Investment

18 Financial Performance  
and Analysis

23 Assets and  
Investment





# Financial Performance and Analysis

Our investment and operational strategies affect our business performance, which in turn translate into the finance data combined in our financial statements.

## Key Financial Indicators

Item	2019	2018
<b>Indicators of profitability</b>		
EBITDA margin (%) <sup>(1)</sup>	57.2	57.1
Net profit margin (%) <sup>(2)</sup>	24.3	26.9
<b>Indicators of investment returns</b>		
Return on equity (excluding non-controlling interests) (%) <sup>(3)</sup>	11.8	12.8
Return on total assets (%) <sup>(4)</sup>	6.5	5.8
<b>Indicators of solvency</b>		
Asset-liability ratio (%) <sup>(5)</sup>	65.1	69.3
Debt to equity ratio (%) <sup>(6)</sup>	143.0	183.5
Interest coverage <sup>(7)</sup>	2.5	2.1

Notes:

- (1) EBITDA margin = (total profit + interest expenses recognized in profit or loss + depreciation and amortization)/operating revenue \* 100%
- (2) Net profit margin = net profit/operating revenue \* 100%
- (3) Return on equity (excluding non-controlling interests) = net profit attributable to shareholders of the parent company/average equity attributable to shareholders of the parent company (the arithmetic mean of the opening and closing balances) \* 100%
- (4) Return on total assets = (total profit + interest expenses recognized in profit or loss)/average total assets (the arithmetic mean of the opening and closing balances) \* 100%
- (5) Asset-liability ratio = total liabilities/total assets \* 100%
- (6) Debt to equity ratio = net debt (the total amount of bank and other borrowings less cash and cash equivalents and other deposits over three months)/total shareholders' equity \* 100%
- (7) Interest coverage = (total profit + interest expenses recognized in profit or loss)/(interest expenses recognized in profit or loss + interest expenses capitalized)

## Financial Results and Analysis

	For the year ended December 31,		Fluctuations increase/ (decrease) RMB' 000	Percentage change increase/ (decrease) %
	2019 RMB' 000	2018 RMB' 000		
Operating revenue	60,875,176.25	50,827,919.18	10,047,257.07	19.8
Operating costs	35,471,460.12	28,503,854.61	6,967,605.51	24.4
Finance costs <sup>(1)</sup>	7,697,736.38	6,000,868.77	1,696,867.61	28.3
Other gains <sup>(2)</sup>	2,405,291.54	1,563,140.90	842,150.64	53.9
Investment income <sup>(3)</sup>	1,307,058.21	1,044,558.66	262,499.55	25.1
Including: Income from investment in associates and joint ventures	1,096,412.69	1,029,509.83	66,902.86	6.5
Non-recurring gains or losses <sup>(4)</sup>	479,913.09	115,782.10	364,130.99	314.5
Net profit attributable to shareholders of the parent company	9,465,700.36	8,702,632.65	763,067.71	8.8
Net profit attributable to shareholders of the parent company (excluding the effects of non-recurring gains or losses)	9,086,300.83	8,609,512.93	476,787.90	5.5

(1) The increase in finance costs was primarily due to the fact that we ceased to capitalize interest expenses and included such expenses in finance costs as a result of the commencement of commercial operation of Yangjiang Units 5 and 6 and Taishan Units 1 and 2 in July 2018, July 2019, December 2018 and September 2019, respectively.

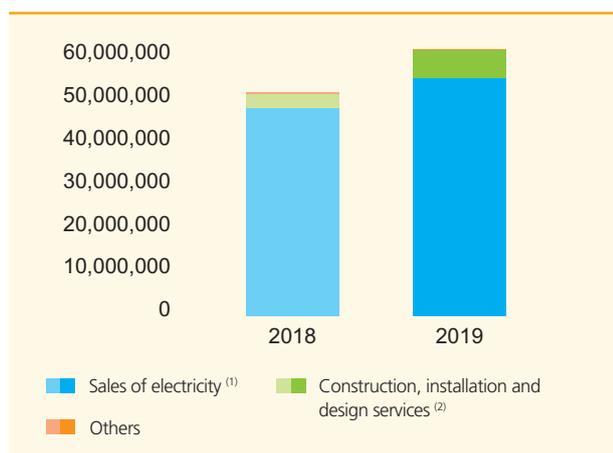
(2) The increase in other gains was primarily due to the gain from increase in VAT refunds received and gains from government grants.

(3) The increase in investment income was primarily due to the gains of RMB143.1 million from the disposal of Shanghai Engineering Science & Technology Co., Ltd (上海中廣核工程科技有限公司) ("Shanghai Company"), being our subsidiary, by CGN Engineering, and the increase in investment income from CGN Finance Co., Ltd. (中廣核財務有限責任公司) ("CGN Finance"), being our associate.

(4) The increase in non-recurring gains or losses was primarily due to the gains of RMB143.1 million from the disposal of Shanghai Company, being our subsidiary, by CGN Engineering, and the increase in government grants (excluding those closely related to the Company's business and for fixed or quantitative purposes in accordance with national uniform standards) received in excess of RMB172.0 million in the corresponding period of previous year.

# Financial Performance and Analysis

## Revenue from Operations



(1) The increase in revenue from sales of electricity was primarily due to the commencement of commercial operation of Yangjiang Units and 6 and Taishan Units 1 and 2 in July 2018, July 2019, December 2018 and September 2019, respectively.

(2) The increase in revenue from construction, installation and design services was primarily due to the increase in the construction volume of Huizhou Nuclear Power and wind power business of CGN Engineering.

## Cost of Operations

	For the year ended December 31,		Fluctuations increase/(decrease) RMB' 000	Percentage change increase/(decrease) %
	2019 RMB' 000	2018 RMB' 000		
<b>Cost of principal business operations</b>	<b>35,185,491.66</b>	<b>28,227,621.58</b>	<b>6,957,870.08</b>	<b>24.6</b>
Including: Cost of sales of electricity	27,743,385.67	23,425,317.97	4,318,067.70	18.4
Of which: Cost of nuclear fuel <sup>(1)</sup>	8,062,452.58	7,338,796.57	723,656.01	9.9
Depreciation of fixed assets <sup>(2)</sup>	9,284,137.38	6,956,778.93	2,327,358.45	33.5
Provision for spent fuel management <sup>(3)</sup>	1,666,053.67	1,332,687.59	333,366.08	25.0
Construction, installation and design services <sup>(4)</sup>	6,144,634.38	3,812,574.57	2,332,059.81	61.2
<b>Other costs of business operations</b>	<b>285,968.46</b>	<b>276,233.03</b>	<b>9,735.43</b>	<b>3.5</b>
<b>Total cost of operations</b>	<b>35,471,460.12</b>	<b>28,503,854.61</b>	<b>6,967,605.51</b>	<b>24.4</b>

- (1) The increase in cost of nuclear fuel was primarily due to the commencement of commercial operation of Yangjiang Units 5 and 6 and Taishan Units 1 and 2 in July 2018, July 2019, December 2018 and September 2019, respectively.
- (2) The increase in depreciation of fixed assets was primarily due to the commencement of commercial operation of Yangjiang Units 5 and 6 and Taishan Units 1 and 2 in July 2018, July 2019, December 2018 and September 2019, respectively.
- (3) The increase in provision for spent fuel management was primarily due to the commencement of provision and payment for spent fuel management as Yangjiang Unit 1 and Ningde Unit 2 commenced commercial operation for five years in 2019.
- (4) The increase in cost of construction, installation and design services was primarily due to the increase in the construction volume of Huizhou Nuclear Power and wind power business of CGN Engineering.

## Financial Position

The bank and other borrowings, receivables, payables, inventories, fixed assets and intangible assets of the Company are shown in the table below. Details of the financial position are set out in the notes to the consolidated financial statements.

	December 31, 2019 RMB' 000	December 31, 2018 RMB' 000 (Restated)	Fluctuations increase/(decrease) RMB' 000	Percentage change increase/(decrease) %
Bank and other borrowings <sup>(1)</sup>	213,002,332.39	222,716,755.82	(9,714,423.43)	(4.4)
Receivables <sup>(2)</sup>	20,918,941.30	15,707,244.35	5,211,696.95	33.2
Payables <sup>(3)</sup>	27,962,902.55	22,963,401.85	4,999,500.70	21.8
Inventories <sup>(4)</sup>	18,370,637.24	21,372,255.36	(3,001,618.12)	(14.0)
Fixed assets and intangible assets <sup>(5)</sup>	261,891,721.74	215,570,003.03	46,321,718.71	21.5

- (1) Bank and other borrowings comprise short-term loans, long-term loans, bonds payable, and long-term loans and bonds payable due within one year.
- (2) Receivables comprise bills receivable, accounts receivable, prepayments, contract assets and other receivables. The increase in receivables was primarily due to the change in the procurement of nuclear fuel from the commissioned processing method to the procurement of components. Payments made before the arrival of nuclear fuel components are included in prepayment, resulting in a significant increase in prepayments.
- (3) Payables comprise bills payable, accounts payable, receipts in advance, contract liabilities and other payables. The increase in payables was primarily due to the transfer to fixed assets according to estimated amounts as a result of the commencement of commercial operation of Yangjiang Unit 6 and Taishan Unit 2.
- (4) The decrease in inventories was mainly due to the change in the procurement of nuclear fuel from the commissioned processing method to the procurement of components. The amount paid before the arrival of nuclear fuel components was included in prepayments, resulting in a significant reduction in the amount included in inventories.
- (5) The main reason for the increase in fixed assets and intangible assets was that Yangjiang Unit 6 and Taishan Unit 2 commenced commercial operation in July 2019 and September 2019, respectively, and the relevant construction in progress was transferred to fixed assets.

# Financial Performance and Analysis

## Analysis of Cash Usage



In 2019, the Company's cash flow position was better than the corresponding period of previous year, in which the net cash inflows from operating activities increased as compared with 2018, mainly because the income increased as compared with 2018. Net cash outflows from investment activities decreased as compared with 2018, mainly due to the decrease in the cash paid for the acquisition of fixed assets as compared with last year as a result of the successive commencement of commercial operations of Yangjiang Unit 6 and Taishan Unit 2, the increase in the cash received from income from investment in associates and the increase in the cash received from disposal of Shanghai Company. The net cash outflows from financing activities also increased as compared with 2018, mainly due to the higher repaid loan amount as compared with previous year.

	For the year ended December 31,		Fluctuations increase/(decrease) RMB' 000	Percentage change increase/(decrease) %
	2019 RMB' 000	2018 RMB' 000		
Net cash flows from operating activities	30,598,898.95	28,409,570.58	2,189,328.37	7.7
Net cash flows from investment activities	(14,636,838.25)	(16,382,045.13)	1,745,206.88	(10.7)
Net cash flows from financing activities	(12,823,306.93)	(10,910,023.69)	(1,913,283.24)	17.5

# Assets and Investments

The Group was mainly engaged in the investment in construction of nuclear power generating units, technical improvement in the NPPs in operation, and research and development of technologies related to nuclear power for the year ended December 31, 2019.

## INVESTMENT IN FIXED ASSETS

For the year ended December 31, 2019, the Group's investment in fixed assets amounted to approximately RMB21,897.4 million, representing an increase of RMB2,995.0 million or 15.8% from RMB18,902.4 million in 2018, mainly due to the commencement of commercial operations of Yangjiang Unit 6 and Taishan Unit 2, resulting in fixed assets being carried out according to estimated amount.

## MAJOR INVESTMENTS IN EQUITY

For the year ended December 31, 2019, the Group increased its capital investment in associates by RMB730.5 million, mainly attributable to the amounts of RMB481.3 million, RMB120.0 million, RMB63.6 million and RMB45.6 million made to Hongyanhe Nuclear, CGN Finance, Ningde Second Nuclear, CGN Fund Phase I), respectively.

## MAJOR ACQUISITION AND DISPOSAL

On January 4, 2019, CGN Engineering entered into the equity transfer agreement with CGNPC. Pursuant to the equity transfer agreement, CGN Engineering should sell 100% equity interests in Shanghai Company held by it to CGNPC at a consideration for the equity transfer of approximately RMB719.6 million. The formalities for the equity transfer were completed on January 31, 2019.

Saved for the above-mentioned matter, the Group had no other material acquisition or disposal for the year ended December 31, 2019.

# Assets and Investments

## USE OF PROCEEDS

### Use of proceeds from the H share offering

The Company issued 10,148,750,000 H shares by way of global offering in December 2014 with net proceeds of approximately RMB21,603.5 million from the offering after deducting various issuance costs. As of December 31, 2019, the Company had used RMB20,636.8 million of the net proceeds for the purposes as set out in the prospectus, representing 95.5% of the net proceeds from the offering.

Item	Movements RMB'000
Net proceeds from the listing	21,603,535
Less: Proceeds used	20,636,796
Among which: Acquisition of 60% equity interest in Taishan Nuclear Power Industry Investment Co., Ltd (台山核電產業投資有限公司) and 12.5% equity interest in Taishan Nuclear	9,700,196
Capital expenditure for NPPs under construction	8,714,300
Research and development activities	888,900
Replenishment of working capital	1,333,400
Proceeds unused as at December 31, 2019	966,739

All of the remaining unused net proceeds are intended to be used for overseas market expansion. As the Company has not carried out any overseas project, such portion of proceeds remain unused. Given the current international development trend of nuclear power, the Company has not yet determined the specific target of overseas market expansion, and it is expected that there will be no foreign investment project in the coming years. Given the orderly progression of the Company's construction of nuclear power projects under construction, in order to increase the efficiency of use of proceeds and reduce capital precipitation, all of such portion of proceeds is intended to be used on the aforesaid "Capital expenditure for NPPs under construction", i.e. the construction expense of Fangchenggang Units 3 and 4. For the construction progress of Fangchenggang Units 3 and 4, please refer to the "Business Performance and Outlook" section of this Annual Report.

The above change in use of net proceeds from the H share offering is subject to approval at the general meeting. For details, please refer to the circular of the 2019 annual general meeting to be published by the Company in due course at a later date.

### Use of proceeds from the A share offering

The Company issued 5,049,861,100 RMB ordinary shares (A shares) on the Shenzhen Stock Exchange in August 2019 through the initial public offerings with net proceeds of RMB12,389.8 million after deducting various issuance costs. As of December 31, 2019, the Company had used all of the net proceeds from the offering, of which RMB10,727.3 million was used for replacement of self-financing funds committed in advance to investment projects, RMB272.7 million was invested in the construction of Fangchenggang Units 3 and 4, and RMB1,389.8 million was used for replenishment of working capital.

## Contingencies

### External Guarantees

The Group confirmed that, for the year ended December 31, 2019, the Group had not provided any external guarantee.

### Assets with Restricted Ownership

As of December 31, 2019, the Group's assets pledged to banks and related parties or with restricted ownership due to other reasons amounted to RMB20,072.57 million in carrying value, which secured loans for the Group. As of December 31, 2018, the carrying value of the Group's assets pledged to banks and related parties or with restricted ownership due to other reasons was RMB19,674.0 million.

As of December 31, 2019 and December 31, 2018, the electricity tariff collection rights of Ling'ao Nuclear, Lingdong Nuclear, Yangjiang Nuclear, Fangchenggang Nuclear, Ningde Nuclear and Taishan Nuclear were pledged to secure the facilities and loans from banks and related parties to these entities.

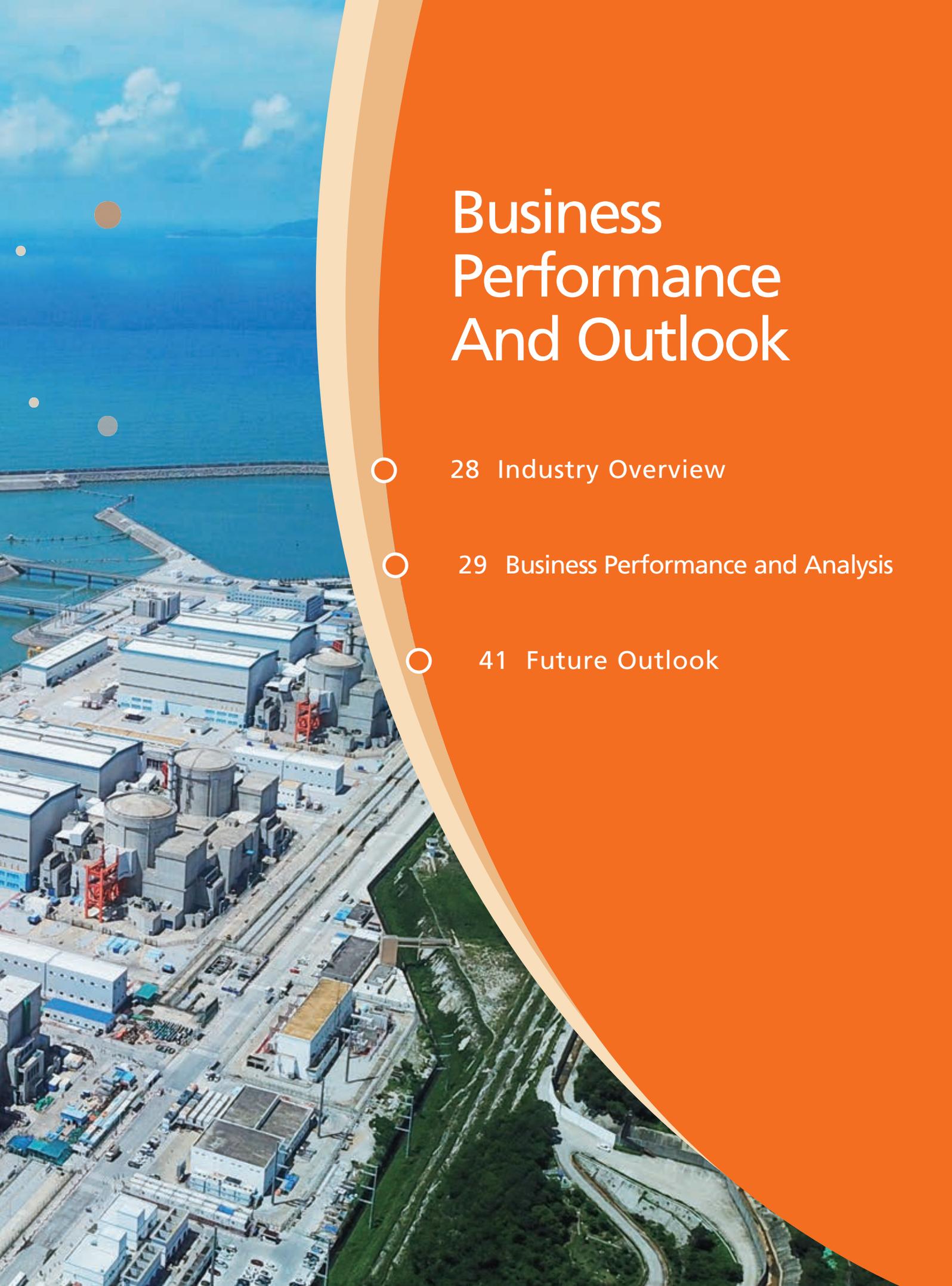
### Legal Proceedings

The Group confirmed that, for the year ended December 31, 2019, there was no significant litigation against the Group, and the Board was not aware of any pending or threatened litigation against the Group which had or could have a material and adverse effect on the financial conditions or operations of the Group.

## Investment Direction

Based on the strategies and business development needs of the Company, the Company will finance the construction of NPPs under construction according to its investment schedules, continue to fund the technological improvement in NPPs in operation to enhance operation, make continuous investment in the research, development and innovation of technologies, and fund the acquisitions of contingent assets in 2020. In addition, the Company will also carry out relevant investment activities at appropriate time by exercising its rights to acquire retained businesses as set out in the non-competition deed entered into with CGNPC and relevant undertakings entered into before the listing of A shares of the Company, thereby laying a solid foundation for the Company's future development.





# Business Performance And Outlook

- 28 Industry Overview
- 29 Business Performance and Analysis
- 41 Future Outlook

# Industry Overview

The 19th National Congress of the Communist Party of China has embarked on a new journey to build a strong socialist modernized country. The central government promoted the construction of ecological civilization in every aspect, and intensified environmental protection and clean development. According to the Report on the Development of China's Nuclear Energy 2019 published by the China Nuclear Energy Association in April 2019, the PRC's economy will continue to expand, and rigid energy demand will exist for a long time. Clean substitution and electric energy substitution are the only roads for energy reform. Nuclear power has prominent advantages in the transformation of clean substitution, electric energy substitution, and the revolution in energy production and consumption. The proportion of nuclear power in the PRC's power generation will increase from 4.76% in 2019 to about 10% in 2035. As proposed in the Research on the PRC's Nuclear Power Development Planning 《我國核電發展規劃研究》 published by China Nuclear Power Development Center of the National Energy Administration and State Grid Energy Research Institute Co., Ltd. in July 2019, nuclear power development should maintain a stable pace. It is estimated that nuclear power industry will reach the scale of 170 GW in 2035; it will maintain a scale of adding about six units per year by 2030. We believe that the nuclear power industry is still in a strategic opportunity period for development in China, and there is an extensive room of development and market prospects.



In 2019, the central government promulgated policies on clean energy consumption one after another, which focused on the supply-side structural reform and promoted clean energy consumption, in order to facilitate green development of the power industry and optimization of the energy structure. In January 2019, the NDRC and the National Energy published the Notice on Standardizing the Management of the Plan of Priority Power Generation and Priority Purchase 《關於規範優先發電優先購電計劃管理的通知》, which mentioned that clean energy such as nuclear power should be fully discharged under safe operation. In June 2019, the NDRC published the Notice on Full Liberalization of Power Generation and Utilization Plan of Operating Electricity Users 《關於全面放開經營性電力用戶發用電計劃的通知》, which proposed to study and advance the implementation of the policy of guaranteeing priority power generation, and to focus on the guaranteed acquisition of clean energy such as nuclear power, hydropower, wind power and solar power. Most of our nuclear power generating units are located in Guangdong Province. The development of the Guangdong-Hong Kong-Macao Greater Bay Area has also put forward requirements for the development of nuclear power. The Outline Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area mentioned the need to build a clean, low-carbon, safe and efficient energy supply system, including "safe and efficient development of nuclear power". We also aim at making contributions to the Guangdong-Hong Kong-Macao Greater Bay Area with our continuous development and safe and stable operation of nuclear power generating units.

In 2019, the overall economy in the PRC continued to operate within an appropriate range. According to the 2019 National Power Industry Statistics Overview 《2019年全國電力工業統計快報一覽表》 issued by the CEC, in 2019, the electricity consumption in the PRC increased by 4.5% over the corresponding period of previous year. The growth of electricity consumption in the PRC slowed down from previous year. The balance between supply and demand of the power supply in the PRC remained loose in general. The national average utilization hours of power generating units was 3,825 hours, representing a year-on-year decrease of 54 hours. The national average utilization hours of nuclear power was 7,394 hours, representing a year-on-year decrease of 149 hours.

	Ratio of installed capacity by type of energy (%)		Ratio of generation capacity by type of energy (%)		Average utilization hours (hours)	
	2019	2018	2019	2018	2019	2018
Nuclear power	2.4	2.4	4.8	4.2	7,394	7,543
Thermal power	59.2	60.2	68.9	70.4	4,293	4,378
Hydropower	17.7	18.6	17.8	17.6	3,726	3,607
Wind power	10.4	9.7	5.5	5.2	2,082	2,103

Note: Data from the 2019 National Power Industry Statistics Overview of the CEC.

In 2019, with the further reforms in the national power system, the share of electricity traded in the market further expanded. According to statistics of the CEC, the share of electricity traded in the market accounted for 39.2% of national power generation in 2019, increasing by 9% as compared with 2018.

# Business Performance and Analysis

As of the end of 2019, we managed 24 nuclear power generating units in operation and five nuclear power generating units under construction (including one unit under construction which was entrusted to us by the controlling Shareholder for management). In 2019, we had two new nuclear power generating units commencing commercial operation, namely Yangjiang Unit 6 and Taishan Unit 2.

As of December 31, 2019, the number and capacity of nuclear power generating units in operation and nuclear power generating units under construction are as follows:

		As at December 31, 2019	As at December 31, 2018	Growth rate
Nuclear power generating units in operation	Number	24	22	9.09%
	Capacity	27,142 MW	24,306 MW	11.67%
Nuclear power generating units under construction	Number	4	6	-33.33%
	Capacity	4,598 MW	7,434 MW	-38.15%
Nuclear power generating unit under construction which was entrusted to the Company by the controlling shareholder of the Company for management	Number	1	0	N/A
	Capacity	1,202 MW	0 MW	N/A

The analysis below is based on the nuclear power generating units we own, excluding nuclear power projects entrusted to us by the controlling Shareholder.

We will introduce and analyse the Company's business performance in 2019 in five aspects, namely safety management, nuclear power generating units in operation, nuclear power generating units under construction, sales of electricity and lean management.

# Business Performance and Analysis

## Safety Management

Safety is crucial to any company. We always adhere to the concept of “Nuclear Safety is Paramount” and our basic principles of “Safety First, Quality Foremost, Pursuit of Excellence”, and apply them to various stages of the design, construction, operation and decommissioning of the NPPs. Based on our experience in nuclear power operation over the years, we have established a mature safety management system.

We highly value safety and always place safety at our top priority. We believe that maintaining nuclear power safety is a great responsibility to the State, society, shareholders, employees and other stakeholders. Only with safety can our units in operation maintain stable operation and our units under construction make steady progress, and thus we can achieve constant improvement in our overall results.

We continued to launch activities such as “On-site Management”, “Observing Nuclear Safety from Compliance with Procedures” and “Precautionary Education on Nuclear Safety Culture” so as to enhance the nuclear safety culture awareness among all employees. At the same time, we continued to promote internal and external supervision as well as dynamic and transparent experience feedback. We organized regular emergency drills under different emergent scenarios and ensured effective operation of safety management system so as to promote the further enhancement of the Company’s safety management level.

According to the INES set by the IAEA, the NPPs we operated and managed have maintained our all-time good safety record of no nuclear event at level 2<sup>note</sup> or above in 2019.

Note: Nuclear incidents are classified into seven levels in the INES according to their impact on (i) people and the environment, (ii) radiological barriers and control, and (iii) defence-in-depth. Level 1 to Level 3 are termed “incident”, while Level 4 to Level 7 are termed “accidents”. Events without safety significance are classified as “below scale/Level 0”.

For other related activities of safety management, please refer to the 2019 ESG Report of the Company.

## Nuclear Power Generating Units in Operation

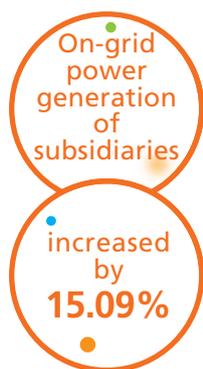
Safe and stable operation of power generating units is the foundation of nuclear power enterprises. In 2019, all nuclear power generating units in operation managed by us maintained safe and stable operation, including Yangjiang Unit 6 and Taishan Unit 2 which have newly commenced commercial operation, with a total annual on-grid power generation of 178,969.73 GWh, representing an increase of 13.96% as compared with 2018.

Among which, the total annual on-grid power generation from NPPs managed by our subsidiaries (including Daya Bay Nuclear Power Station, Ling'ao Nuclear Power Station, Lingdong Nuclear Power Station, Yangjiang Nuclear Power Station, Fangchenggang Nuclear Power Station, Ningde Nuclear Power Station and Taishan Nuclear Power Station) amounted to 148,206.20 GWh, representing an increase of 15.09% as compared with that of 2018. The total annual on-grid power generation from NPPs managed by our associates (Hongyanhe Nuclear Power Station) amounted to 30,763.53 GWh, representing an increase of 8.82% as compared with that of 2018.

Name of NPP	On-grid power generation from January to December 2019 (GWh)	On-grid power generation from January to December 2018 (GWh)	Change rate for the corresponding period (%)
	<b>From subsidiaries</b>		
Daya Bay Nuclear Power Station	15,475.75	15,751.48	-1.75
Ling'ao Nuclear Power Station	14,381.73	14,260.61	0.85
Lingdong Nuclear Power Station	15,487.12	16,125.83	-3.96
Yangjiang Nuclear Power Station <sup>1</sup>	41,287.06	35,138.39	17.50
Fangchenggang Nuclear Power Station <sup>2</sup>	16,119.45	15,081.60	6.88
Ningde Nuclear Power Station <sup>3</sup>	29,277.45	31,732.44	-7.74
Taishan Nuclear Power Station <sup>4</sup>	16,177.65	684.09	2,264.85
<b>Subsidiaries, total</b>	<b>148,206.20</b>	<b>128,774.43</b>	<b>15.09</b>
<b>From associates</b>			
Hongyanhe Nuclear Power Station <sup>5</sup>	30,763.53	28,270.15	8.82
<b>Subsidiaries and associates, total</b>	<b>178,969.73</b>	<b>157,044.58</b>	<b>13.96</b>

### Notes:

1. Yangjiang Unit 5 commenced commercial operation on July 12, 2018. Yangjiang Unit 6 commenced commercial operation on July 24, 2019. Duration of refuelling outage of Yangjiang Nuclear Power Station in 2019 was shorter as compared with the corresponding period of 2018.
2. Duration of refuelling outage of Fangchenggang Nuclear Power Station in 2019 was shorter as compared with the corresponding period of 2018.
3. Duration of refuelling outage of Ningde Nuclear Power Station in 2019 was longer as compared with the corresponding period of 2018. Due to the relatively great precipitation and at the request of power grids, it had a longer time of temporary operation at reduced load or shutdown as compared with the corresponding period of 2018.
4. Taishan Unit 1 commenced commercial operation on December 13, 2018. Taishan Unit 2 commenced commercial operation on September 7, 2019.
5. Duration of refuelling outage of Hongyanhe Nuclear Power Station in 2019 was longer as compared with the corresponding period of 2018. Duration of temporary operation at reduced load or shutdown as requested by power grids was shorter as compared with the corresponding period of 2018.



# Business Performance and Analysis

## Operation Performance

Capacity factor, load factor and utilization hours are the three indicators normally used by us to evaluate the utilization of nuclear power generating units. They are mainly affected by the effects of refuelling outages for the generating units. According to the arrangements of the annual outage plan, there are certain differences between the duration of refuelling outages for different generating units, and refuelling outages may be carried over to the next year, resulting in small differences between the duration of outages in different years with respect to the same type of refuelling outage for the same type of generating unit. Meanwhile, load factor and utilization hours of nuclear power generating units are also under the influence of the transmission line maintenance an temporary operation at reduced load or shutdown resulting from the demand and supply conditions of the electricity market.

In 2019, we had 24 nuclear power generating units in operation, with an average capacity factor of 92.42%, an average load factor of 86.15% and average utilization hours of 7,507 hours, as compared with 92.75%, 86.94% and 7,554 hours of the 22 nuclear power generating units in operation in 2018. The details of the operation performance of generating units we operated and managed in 2019 are as follows:

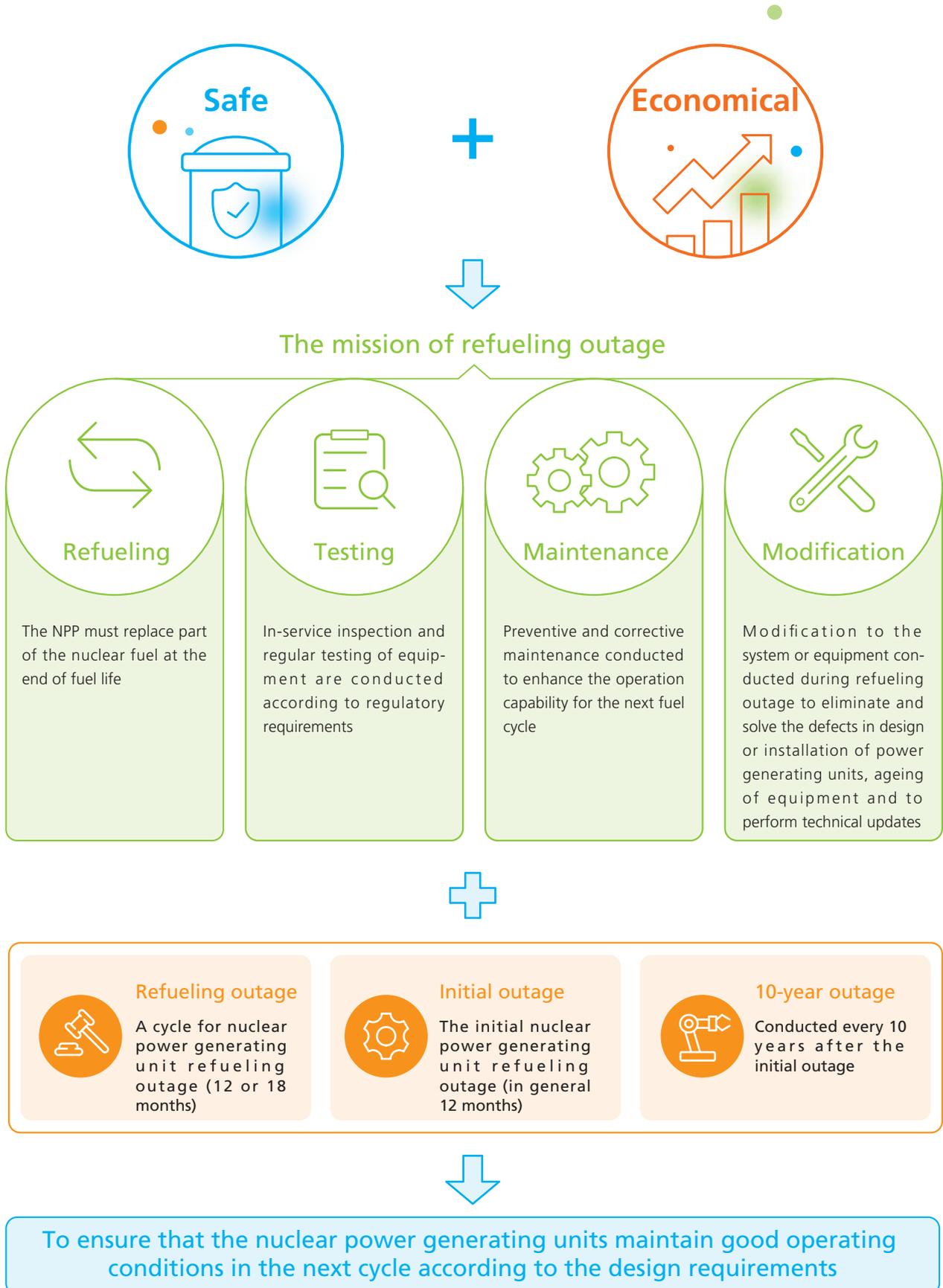
Nuclear Power Generating Unit	Capacity factor (%)		Load factor (%)		Utilization hours (hours)	
	2019	2018	2019	2018	2019	2018
<i>From subsidiaries</i>						
Daya Bay Unit 1 <sup>1</sup>	92.94	89.25	94.36	90.34	8,267	7,915
Daya Bay Unit 2 <sup>2</sup>	92.35	99.72	93.52	100.87	8,194	8,838
Ling'ao Unit 1 <sup>3</sup>	95.04	87.52	90.62	84.19	7,936	7,373
Ling'ao Unit 2 <sup>4</sup>	87.12	92.09	82.70	87.61	7,242	7,672
Lingdong Unit 1 <sup>5</sup>	99.98	89.32	93.22	88.12	8,159	7,720
Lingdong Unit 2 <sup>6</sup>	89.29	98.34	80.11	91.85	7,011	8,047
Yangjiang Unit 1 <sup>7</sup>	89.23	88.23	88.27	86.09	7,813	7,541
Yangjiang Unit 2 <sup>8</sup>	90.24	99.98	83.78	99.72	7,337	8,736
Yangjiang Unit 3 <sup>9</sup>	99.99	91.61	96.37	88.58	8,442	7,759
Yangjiang Unit 4 <sup>10</sup>	91.72	82.42	78.73	73.79	6,798	6,464
Yangjiang Unit 5 <sup>11</sup>	82.10	99.60	75.08	95.05	6,574	8,326
		Under		Under		Under
Yangjiang Unit 6 <sup>12</sup>	95.99	construction	91.33	construction	8,001	construction
Fangchenggang Unit 1 <sup>13</sup>	99.29	89.60	95.85	83.32	8,397	7,299
Fangchenggang Unit 2 <sup>14</sup>	92.14	99.98	84.46	85.87	7,398	7,522
Ningde Unit 1 <sup>15</sup>	97.54	88.50	89.90	84.48	7,876	7,401
Ningde Unit 2 <sup>16</sup>	91.13	89.13	74.22	86.30	6,502	7,560
Ningde Unit 3 <sup>17</sup>	91.62	92.54	83.01	89.54	7,271	7,843
Ningde Unit 4 <sup>18</sup>	90.92	99.99	81.65	94.27	7,152	8,258
Taishan Unit 1 <sup>19</sup>	90.88	96.47	83.28	94.97	7,296	8,319
		Under		Under		Under
Taishan Unit 2 <sup>20</sup>	99.99	construction	93.11	construction	8,156	construction
<i>From associates</i>						
Hongyanhe Unit 1 <sup>21</sup>	90.30	99.98	87.78	95.95	7,689	8,406
Hongyanhe Unit 2 <sup>22</sup>	91.57	89.80	87.66	84.03	7,679	7,362
Hongyanhe Unit 3 <sup>23</sup>	84.75	91.17	81.35	71.11	7,127	6,231
Hongyanhe Unit 4 <sup>24</sup>	92.02	85.16	77.17	56.56	6,760	4,956

Notes:

1. Daya Bay Unit 1 completed a refuelling outage in 2019 and duration of refuelling outage in 2019 was shorter as compared with 2018.
2. Daya Bay Unit 2 completed a refuelling outage in 2019 and did not conduct any refuelling outage in 2018.
3. Ling'ao Unit 1 completed a refuelling outage in 2019 and refuelling outage duration in 2019 was shorter as compared with 2018.
4. Ling'ao Unit 2 completed a refuelling outage in 2019 and duration of refuelling outage in 2019 was longer as compared with 2018.
5. Lingdong Unit 1 did not conduct any refuelling outage in 2019 and completed a refuelling outage in 2018.
6. Lingdong Unit 2 completed a refuelling outage in 2019 and did not conduct any refuelling outage in 2018.
7. Yangjiang Unit 1 completed a refuelling outage in 2019 and duration of refuelling outage in 2019 was shorter as compared with 2018.
8. Yangjiang Unit 2 completed a refuelling outage in 2019 and did not conduct any refuelling outage in 2018.
9. Yangjiang Unit 3 did not conduct any refuelling outage in 2019 and completed a refuelling outage in 2018.
10. Yangjiang Unit 4 completed a refuelling outage in 2019, and completed the initial outage after commencement of operation in 2018 which had longer duration, being similar to that of a ten-year outage. Duration of refuelling outage in 2019 was shorter as compared with 2018.
11. Yangjiang Unit 5 completed the initial outage after commencement of operation in 2019 and its duration was longer, being similar to that of a ten-year outage.
12. Yangjiang Unit 6 commenced commercial operation on July 24, 2019.
13. Fangchenggang Unit 1 did not conduct any refuelling outage in 2019 and completed a refuelling outage in 2018.
14. Fangchenggang Unit 2 completed a refuelling outage in 2019 and did not conduct any refuelling outage in 2018.
15. Ningde Unit 1 completed a refuelling outage in 2019 and duration of refuelling outage in 2019 was shorter as compared with 2018.
16. Ningde Unit 2 completed a refuelling outage in 2019 and duration of refuelling outage in 2019 was shorter as compared with 2018.
17. Ningde Unit 3 completed a refuelling outage in 2019 and duration of refuelling outage in 2019 was longer as compared with 2018.
18. Ningde Unit 4 completed a refuelling outage in 2019 and did not conduct any refuelling outage in 2018.
19. Taishan Unit 1 commenced commercial operation on December 13, 2018.
20. Taishan Unit 2 commenced commercial operation on September 7, 2019.
21. Hongyanhe Unit 1 completed a refuelling outage in 2019 and did not conduct any refuelling outage in 2018.
22. Hongyanhe Unit 2 completed a refuelling outage in 2019 and duration of refuelling outage in 2019 was shorter as compared with 2018.
23. Hongyanhe Unit 3 completed two refuelling outages in 2019 and duration of refuelling outage in 2019 was longer as compared with 2018.
24. Hongyanhe Unit 4 completed a refuelling outage in 2019, and completed the initial outage after commencement of operation in 2018 which had longer duration, being similar to that of a ten-year outage. The duration of refuelling outage in 2019 was shorter as compared with 2018.

# Business Performance and Analysis

Based on the design of pressurised water reactor (the “PWR”) NPPs, the nuclear reactor of each unit in operation must be shut down and refuelled after a certain period of time. The refuelling intervals of Hongyanhe Unit 3 and Hongyanhe Unit 4 are generally 12 months, while the refuelling intervals for other nuclear power generating units are generally 18 months.



Considering the economic factors and arrangements for related works, refuelling outages intervals of nuclear power generating units are not fixed to every 12 to 18 months. In order to ensure the safe operation of the generating units, we usually take local power load fluctuations into account and communicate with local power grid companies to rationalize the refuelling outage plans for generating units. As the needs for inspection and maintenance projects are different, the duration of each refuelling outage is not identical. More inspection items are required for the initial and ten-year outages, resulting in a longer inspection period compared to that of regular refuelling outages. According to the specific operating conditions of each generating unit, we continue to enhance and develop targeted refuelling outage plans, reasonably arrange inspection and maintenance projects, and actively adopt advanced technology to improve the efficiency of inspection and maintenance, in order to have good control over the duration of each refuelling outage on the premise of ensuring the quality of safety.

In 2019, we successfully completed 19 refuelling outages, including the initial outage after commencement of commercial operation of Yangjiang Unit 5. To improve the overall economic efficiency of nuclear power generating units, the Company adopted adaptive outage strategy. In 2019, two outages for Hongyanhe Unit 3 were arranged and completed.

In 2019, the total aggregate number of calendar days for refuelling outages was approximately 564 days.

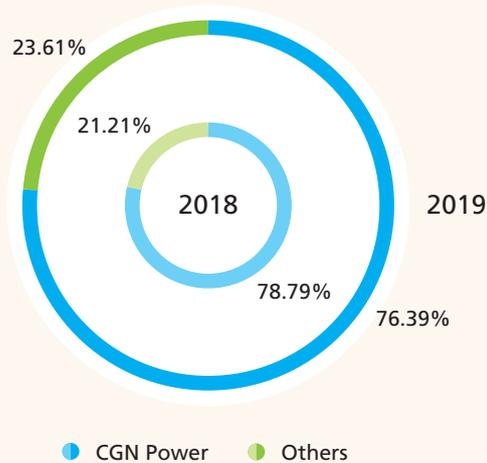


“Pursuit of Excellence” is one of the basic principles of the Company. In order to discover our inadequacies and make sustained improvements, we continued to compare our indicators with international counterparts. When compared with the one-year benchmark value of all 12 performance indicators for the PWR set by the WANO, for our nuclear power units, the ratio of performance indicators achieving the world’s top 1/4 level (advanced level) and top 1/10 level (excellent level) remained at a high level, leading among industry peers. Ling’ao Unit 1 has been operating without unplanned reactor shutdown for more than 4,953 days (excluding refueling outages duration). In other words, it operated safely and steady for the 14 consecutive years.

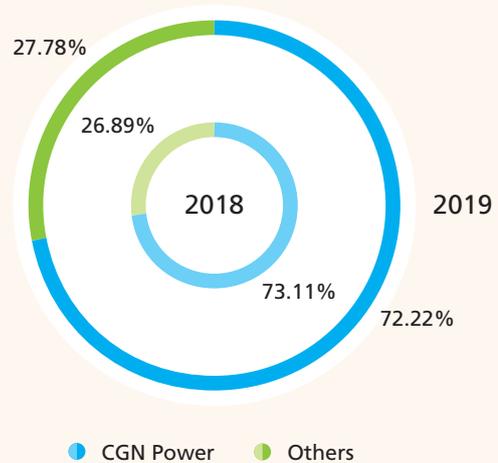
The following table indicates the comparison of our 24 nuclear power generating units for 2019 and the one-year benchmark value of the 12 performance indicators for the PWR set by WANO in 2018:

	2019	2018
Number of units	24	22
Total number of indicators	288	264
Including:		
Number of indicators ranked top 1/4 level in the world	220	208
Number of indicators ranked top 1/10 level in the world	208	193

Percentage of indicators ranked top 1/4 (advanced level) in the world



Percentage of indicators ranked top 1/10 (excellent level) in the world



# Business Performance and Analysis

## Environmental Performance

We continued to improve radioactive waste management, optimize emissions process of liquid radioactive waste and gas radioactive waste (the “Discharge”) and strictly complied with emission control standards. In 2019, the radioactive waste management of the 24 generating units in operation managed by us strictly complied with the national laws and regulations, and met the standards of the relevant technical specifications.

The following table sets forth the amounts of the various types of radioactive waste discharged at our NPPs for the period indicated as a percentage of the national standards. The total amounts of the Discharge from our NPPs were far below the applicable national limits.

	Daya Bay Base Area (including Daya Bay Nuclear Power Station, Ling'ao Nuclear Power Station and Lingdong Nuclear Power Station)		Yangjiang Nuclear Power Station		Fangchenggang Nuclear Power Station		Ningde Nuclear Power Station		Taishan Nuclear Power Station		Hongyanhe Nuclear Power Station	
	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
Discharged liquid radioactive waste (radionuclides other than tritium) as a percentage of the national standards	0.27%	0.35%	0.55%	0.29%	0.29%	0.43%	0.24%	0.30%	3.02%	0.54%	0.19%	0.21%
Discharged gas radioactive waste (inert gases) as a percentage of the national standards	0.43%	0.56%	0.30%	0.24%	0.29%	0.35%	0.28%	0.30%	1.59%	0.71%	0.20%	0.21%
Solid radioactive waste (m <sup>3</sup> )	244.8	248.6	60.8	44.8	67.6	64.6	124.8	136.8	0	0	118.4	159.6
Results of environmental monitoring	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal

Note: The main reason for changes in the data includes: the refuelling outage plan is different for every unit, maintenance projects are different, Yangjiang Unit 6 and Taishan Unit 2 commenced commercial operation in 2019; the annual emission limit of Taishan Nuclear Power Station was different from other power stations, and there is no comparability between the power stations.

The Ministry of Ecology and Environment continuously monitored the time used for absorption (the “Air-absorbed Rates”) in the periphery of our nuclear power generating units in operation in the PRC. The monitoring data indicated that the Air-absorbed Rates fell within the fluctuation range of local background radiation levels.

Nuclear power is a clean energy source that contributes to energy saving and emissions reduction to the society. Our annual on-grid nuclear power generation in effect represented a reduction of approximately 54.93 million tons of standard coal consumption, approximately 150.51 million tons of CO<sub>2</sub> emissions, with an equivalent effect of planting a forest of 0.4 million hectares.

## Nuclear Power Generating Units under Construction

The quality of nuclear power generating units under construction is important for the safe and efficient operations of nuclear power generating units after commencement of operation. We meticulously organize project construction in strict compliance with the requirements of relevant laws and regulations. All major projects millstone that need to be inspected by the national regulatory authorities could only enter into the next phase of Unit after being inspected and confirmed that all requirements are being complied. We also attach importance to learning from experience feedbacks of domestic and foreign construction of nuclear power generating units, and improving of the safety and quality of our construction work.



As of December 31, 2019, among five nuclear power generating units we construct, two were in the civil construction phase (including units under construction which was entrusted to the Company by the controlling shareholder for management), two were in the equipment installation phase and one was in the commissioning phase.

We controlled, supervised and managed aspects including the safety, quality, progress, investment, technology and environment of our construction projects, so as to ensure that the projects under construction complied with various regulatory requirements and facilitate safe, stable and economical operation of the units after commencement of commercial operation.

Nuclear Power Generating Units	Civil Construction Phase <sup>1</sup>	Equipment Installation Phase <sup>2</sup>	Commissioning Phase <sup>3</sup>	Grid Connection Phase <sup>4</sup>	Expected Date of Commencement of Operation
--------------------------------	---------------------------------------	---	----------------------------------	------------------------------------	--

### From subsidiaries

Fangchenggang Unit 3		√			2022
Fangchenggang Unit 4	√				2022

### From associates

Hongyanhe Unit 5			√		Second half of 2021
Hongyanhe Unit 6		√			First half of 2022

Entered into the commissioning phase on October 10, 2019

#### Notes:

1. "Civil construction" phase refers to the process from the First Concrete Day ("FCD") to the proper roof installation of the main plant of the nuclear reactor.
2. "Equipment installation" phase refers to the process from the installation of nuclear island equipment upon the roof installation of the main plant of the nuclear reactor to the nuclear island main system meeting the conditions to conduct cold function tests.
3. "Commissioning" phase refers to the process of conducting cold function tests for nuclear island main system and commencing joint commissioning for the power plant.
4. "Grid connection" phase refers to the commissioning of generators upon the first grid connection with the power grid, demonstrating that the units are capable for power generation.

# Business Performance and Analysis

Power generating units may be affected by a variety of factors during the construction process, including delays in delivery, increased costs for major equipment and materials, delays in obtaining regulatory approvals, permits, or licenses, and unexpected engineering, environmental, or geographic issues, changes in localization rates, as well as implementation of other Chinese nuclear safety regulations and safety requirements, therefore, the actual date of operation may not match the expected date, and we will publish the latest information from time to time in accordance with the requirements of relevant rules.

Hongyanhe Nuclear completed the assessment of the construction related risks of Hongyanhe Unit 5 and Hongyanhe Unit 6, and after due consideration, the expected time of commencement of operation of Hongyanhe Unit 5 and Hongyanhe Unit 6 will be adjusted to the second half of 2021 and the first half of 2022, respectively. For details, please refer to the relevant announcement of the Company dated December 27, 2019.

## Sales of Electricity

Over 85% of the Group's revenue came from sales of electricity by our subsidiaries. We sell the electricity generated by our NPPs based on electricity sales contracts. In 2019, the on-grid power generation of our subsidiaries was 148,206.20 GWh and the sales revenue of electricity was approximately RMB52,783.02 million, representing 86.71% of our operating revenue for the year.



In 2019, as the economic development condition of each region differs, the demand and supply for electricity in the provinces where our nuclear power generating units were located varied. In light of the complex power market situation, the Company adopted the power sales strategy of "striving for more shares of planned on-grid power generation, striving for better market power generation and electricity tariff, striving for development and utilization of incremental market and striving for more shares in power transmission across provinces and regions", and surpassed the target of our power plan for the year and guaranteed the overall economic benefits of the Company. In 2019, according to the amendments to the Implementation Details of the Operation of the Grid of the Power Plants 《發電廠併網運行管理實施細則》 and the Implementation Details of the Auxiliary Service Management of Grid-connected Power Plants 《併網發電廠輔助服務管理實施細則》 by relevant local regulatory authorities, our related nuclear power generating units recorded a higher auxiliary service fee as compared with 2018.

We actively communicated and coordinated with national and provincial competent governing bodies to actively promote the policies relating to power generating units of Taishan Nuclear on power generation and tariffs, and was permitted to follow the government policies of pricing regarding electricity execution plan of Taishan Unit 1 and Unit 2, offering a certain guarantee for the electricity sales of Taishan Nuclear.

In 2019, our nuclear power generating units in operation achieved a total on-grid power generation of 178,969.73 GWh, representing a year-on-year increase of 13.96%. Among which, the market-based power generation volume accounted for approximately 32.88% of the total on-grid power generation, which remained basically flat as compared with 2018.

Under normal circumstances, local power grid company will pay 80% of the benchmark on-grid tariff of the local coal-fired generating unit (desulfurization) as the provisional tariff during the period between the unit is put into commercial operation and the on-grid tariff of the planned power generation is approved, and such portion of the tariff will be retroactively settled after the approval of the commercial tariff. On March 20, 2019, the NDRC approved the trial on-grid tariff for planned generation of Taishan units, which is set at RMB0.4350/kWh (tax inclusive) effective from the date of commencement of commercial operation to the end of 2021. For details, please refer to the relevant announcement of the Company on March 28, 2019.

While striving to increase on-grid power generation, we also paid close attention to the on-grid tariffs of operating units. The NDRC issued the Notice on Lowering General Industrial and Commercial Electricity Prices 《關於降低一般工商業電價的通知》 on May 15, 2019. Pursuant to the above-mentioned notice, the nuclear power on-grid tariffs approved by the NDRC (except for the third-generation nuclear power units) were adjusted by the provincial pricing authorities after considering the factors that the VAT rate is reduced and became effective from July 1, 2019. Therefore, this adjustment did not affect Taishan Units 1 and 2 of the Group. The on-grid tariffs of Taishan Unit 1 and Unit 2 remained at RMB0.4350/kWh (tax inclusive). The provinces where our nuclear power generating units in operation are located adjusted their nuclear power tax inclusive on-grid tariff, which became effective from July 1, 2019.

## Guangdong Province



The electricity consumption increased by **5.89%** in 2019 over the corresponding period of previous year. The Company's nuclear power units in Guangdong Province continued to participate in electricity market in the "full capacity power generation with favourable tariff" model in 2019, and the on-grid power generation increased by **25.44%** over the corresponding period of previous year.

## Fujian Province



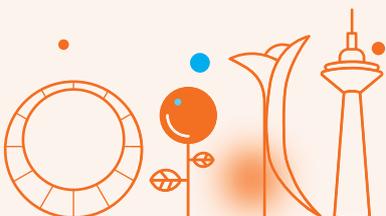
The electricity consumption increased by **3.83%** in 2019 over the corresponding period of previous year. Ningde Nuclear, due to the relatively great precipitation and at the request of power grids, had a longer time of temporary operation at reduced load as compared with the corresponding period of previous year, and the on-grid power generation decreased by **7.74%** over the corresponding period of previous year.

## Guangxi Zhuang Autonomous Region



The electricity consumption increased by **12.00%** in 2019 over the corresponding period of previous year. Fangchenggang Nuclear actively developed the incremental market, and obtained market-based power generation targets that surpassed the corresponding period of previous year. A year-on-year increase of **6.88%** was recorded in on-grid power generation.

## Liaoning Province



The electricity consumption increased by **4.30%** in 2019 over the corresponding period of previous year. With proactive market expansion, Hongyanhe Nuclear entered into larger transactions within the province, and recorded a year-on-year increase in the trading volume of bilateral trades in the province and a year-on-year increase of **8.82%** in the on-grid power generation.

# Business Performance and Analysis

As of December 31, 2019, the on-grid tariffs (VAT included) of the planned electricity sales of our nuclear power generating units in operation were as follows:

Nuclear Power Generating Units	Clients	On-grid Tariffs
		(VAT included) (RMB/kWh)
Daya Bay Unit 1	Guangdong Power Grid Co., Ltd.	0.4056
Daya Bay Unit 2	Guangdong Power Grid Co., Ltd.	0.4056
Ling'ao Unit 1	Guangdong Power Grid Co., Ltd.	0.4143
Ling'ao Unit 2	Guangdong Power Grid Co., Ltd.	0.4143
Lingdong Unit 1	Guangdong Power Grid Co., Ltd.	0.4153
Lingdong Unit 2	Guangdong Power Grid Co., Ltd.	0.4153
Yangjiang Unit 1	Guangdong Power Grid Co., Ltd.	0.4153
Yangjiang Unit 2	Guangdong Power Grid Co., Ltd.	0.4153
Yangjiang Unit 3	Guangdong Power Grid Co., Ltd.	0.4153
Yangjiang Unit 4	Guangdong Power Grid Co., Ltd.	0.4153
Yangjiang Unit 5	Guangdong Power Grid Co., Ltd.	0.4153
Yangjiang Unit 6	Guangdong Power Grid Co., Ltd.	0.4153
Fangchenggang Unit 1	Guangxi Power Grid Co., Ltd.	0.4063
Fangchenggang Unit 2	Guangxi Power Grid Co., Ltd.	0.4063
Ningde Unit 1	Fujian Electric Power Co., Ltd.	0.4153
Ningde Unit 2	Fujian Electric Power Co., Ltd.	0.4153
Ningde Unit 3	Fujian Electric Power Co., Ltd.	0.3916
Ningde Unit 4	Fujian Electric Power Co., Ltd.	0.3590
Taishan Unit 1	Guangdong Power Grid Co., Ltd.	0.4350
Taishan Unit 2	Guangdong Power Grid Co., Ltd.	0.4350
Hongyanhe Unit 1	Liaoning Electric Power Co., Ltd.	0.3823
Hongyanhe Unit 2	Liaoning Electric Power Co., Ltd.	0.3823
Hongyanhe Unit 3	Liaoning Electric Power Co., Ltd.	0.3823
Hongyanhe Unit 4	Liaoning Electric Power Co., Ltd.	0.3823

## Lean Management

We continue to put efforts into lean management. In 2019, we made certain achievements in lean management.

Under the lean strategy, in 2019, we achieved good results in the cost management of nuclear power generating units in operation. We continued to advance the implementation of the three-year plan on cost reduction, improved and deepened the our cost management system, formulated various cost standards in accordance with domestic and foreign industry benchmarks and our actual conditions, and worked in concert with power stations to develop key areas including dedicated cost control. For example, we have continued to carry out lean management of outage in recent years. Through the implementation of the minimum operating unit management, the Company optimized spare parts management, promoted an all-round contractor management model, and further increased independent maintenance ratios and Standard working hours settlement to achieve the cost control target of 2019 on the premise of ensuring safety and quality.

# Future Outlook

With the PRC's economy entering into a period of high-quality development from the period of rapid development, and the ongoing intensified implementation of power system reform, the Company's development and operation are facing a lot of new requirements and new changes. We will adhere to the nuclear safety culture with "Honesty and Transparency" and the basic principles of "Safety First, Quality Foremost, Pursuit of Excellence" as well as the core value of "Doing Things Right in One Go" to explore new ideas, actively plan and respond.

## In 2020, we plan to carry out the following initiatives:



- In conformity with the development in a new environment, we will continue to carry out safety standardization and international benchmarking, reinforce the implementation of intensive measures applying new technology to avoid human errors, and enhance industrial safety, fire control and network information security management, in order to facilitate development while guaranteeing safety;
- In the premise of ensuring safety and quality, we will push forward construction of Fangchenggang Units 3 and 4, Hongyanhe Units 5 and 6 and entrusted management projects as planned, and further strengthen management of nuclear power construction projects;
- We will ensure the safe and stable operation of all the generating units in operation. We plan to conduct 18 refuelling outages during the year (including two initial outages and two refuelling outages conducted over to the next year). According to the regular arrangement of power grids during holidays, we plan to mainly conduct three refuelling outages in the first quarter, four in the second quarter, two in the third quarter, and nine in the fourth quarter of 2020;
- We will adapt to the changes in the electricity market situation, continuously optimize the marketing system, and mechanism of electricity market, and strengthen the development of marketing capabilities for electricity market to strive for more on-grid generation through various channels and initiatives, striving to achieve an average utilization hour of generating units in 2020 not less than that in 2019;
- We will promote reliability of fuels and equipment, and improve safety system performance of power generating units with business growth driven by independent innovation such as application of technology innovation and technical transformation, in order to facilitate the sustainable development of the Company;
- We will continuously push forward the implementation of SCS management strategy and lean management and strengthen internal resource coordination and cooperation to effectively control construction cost of units under construction as well as operation and management cost of generating units in operation; and
- We will closely follow the change of national policy, domestic and international economic and financial environment, adhere to the principle of prudence, identify changes in risks in a timely manner through operation of risk management system, and adjust our measures when appropriate to ensure the steady development of the Company.

# Capitals

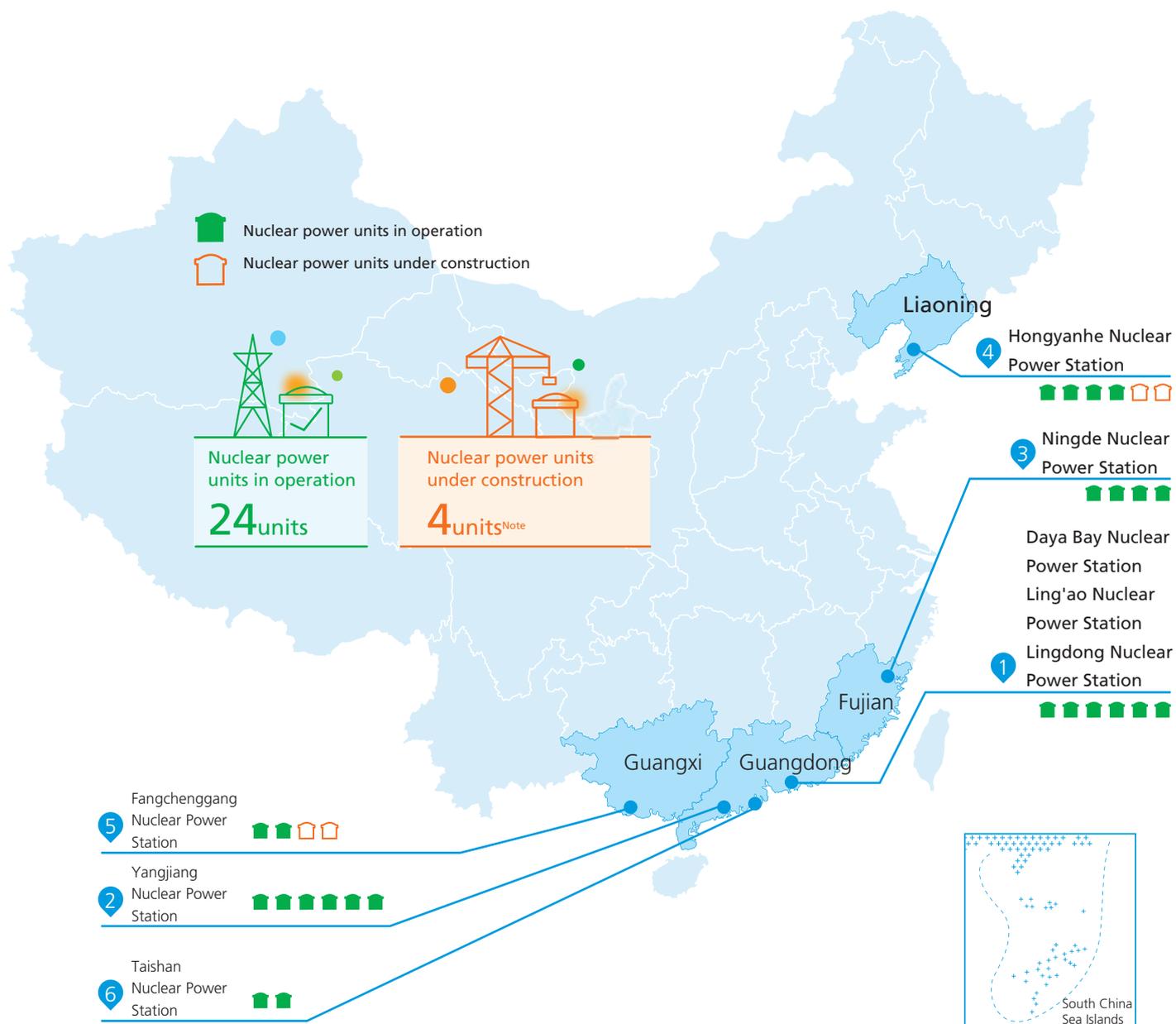
- 44 Production Capital ○
- 50 Intellectual Capital ○
- 55 Human Capital ○
- 65 Financial Capital ○
- 73 Environmental Capital ○
- 75 Social and Relationship Capital ○





# Production Capital

Our production capital is mainly our investments in nuclear power units (including those in operation and under construction), as well as the ongoing optimized management strategies. With these capitals, we continue to provide customers with stable and reliable power.



Note: Excluding Huizhou Unit 1 managed by the Company as entrusted by the controlling shareholder.

## 1 Units 1 and 2 of Daya Bay Nuclear Power Station:

Located in Shenzhen City of Guangdong Province, Daya Bay Nuclear Power Station has two nuclear power generating units in operation, both of which have a single-unit installed capacity of 984MW and use M310 technology. Daya Bay Nuclear Power Station is a large commercial PWR NPP that was built in the PRC by utilizing foreign investment, advanced technology and management experience. Unit 1 commenced commercial operation on February 1, 1994 and is the first commercial nuclear power unit that commenced commercial operation in the PRC.

## Units 1 and 2 of Ling'ao Nuclear Power Station:

Located in Shenzhen City of Guangdong Province, Ling'ao Nuclear Power Station is adjacent to Daya Bay Nuclear Power Station. It has two nuclear power generating units in operation, both of which have a single-unit installed capacity of 990MW and use M310 technology. Ling'ao Nuclear Power Station is the second large-scale commercial NPP built in Guangdong Province following Daya Bay Nuclear Power Station. Leveraging our experience gained in the construction of Daya Bay Nuclear Power Station, Ling'ao Nuclear Power Station met international standards for NPP operation design and construction with fully localized project management, construction and installation, commissioning and operations preparation, and partially localized design and equipment manufacturing.

## Units 1 and 2 of Lingdong Nuclear Power Station:

Located in Shenzhen City of Guangdong Province, Lingdong Nuclear Power Station is adjacent to Daya Bay Nuclear Power Station and Ling'ao Nuclear Power Station. It has two nuclear power generating units in operation, which have a single-unit installed capacity of 1,087MW and use CPR1000 technology. Lingdong Nuclear Power Station is the third large-scale commercial NPP built in Guangdong Province following Daya Bay Nuclear Power Station and Ling'ao Nuclear Power Station. It is an exemplary project for the PRC's domestically developed modified CPR1000 gigawatt-level nuclear power technology, and is also the PRC's first gigawatt-level NPP designed, manufactured, constructed and operated in reliance upon the PRC's domestic service providers and equipment suppliers.

## 2 Units 1 to 6 of Yangjiang Nuclear Power Station:

Located in Yangjiang City of Guangdong Province, Yangjiang Nuclear Power Station has six nuclear power generating units in operation with a single-unit installed capacity of 1,086MW. Units 1 to 4 of Yangjiang Nuclear Power Station use CPR1000 series technology, and Units 5 and 6 use ACPR1000 technology. Yangjiang Nuclear Power Station is a key energy development project under the PRC's 11th Five-Year Plan, represents a major milestone in the development of nuclear power in the PRC in scale, series and standardization, and plays an important role in the localization of nuclear power equipment production.

## 3 Units 1 to 4 of Ningde Nuclear Power Station:

Located in Ningde City of Fujian Province, Ningde Nuclear Power Station has four nuclear power generating units in operation with a single-unit installed capacity of 1,089MW. All four units use CPR1000 technology. Ningde Nuclear Power Station is the first NPP that commenced commercial operation in Fujian Province of the PRC.

## 4 Units 1 to 6 of Hongyanhe Nuclear Power Station:

Located in Dalian City of Liaoning Province, Hongyanhe Nuclear Power Station has six nuclear power generating units. Units 1-4 are units in operation with a single-unit installed capacity of 1,119MW, while Units 5 and 6 were still under construction. Units 1 to 4 of Hongyanhe Nuclear Power Station use CPR1000 technology, while Units 5 and 6 use ACPR1000 technology. Hongyanhe Nuclear Power Station is the first NPP that commenced commercial operation in Northeast PRC.

## 5 Units 1 to 4 of Fangchenggang Nuclear Power Station:

Located in Fangchenggang City in Guangxi Zhuang Autonomous Region, Fangchenggang Phase I includes Units 1 and 2 which are in operation with a single-unit installed capacity of 1,086MW. Units 1 and 2 use CPR1000 technology. Fangchenggang Phase II includes Units 3 and 4 which are still under construction with a single-unit installed capacity of 1,180MW. Units 3 and 4 use HPR1000 technology. Fangchenggang Nuclear Power Station is the first NPP in western PRC.

## 6 Units 1 and 2 of Taishan Nuclear Power Station:

Located in Taishan City of Guangdong Province, Taishan Nuclear Power Station has two nuclear power generating units in operation with a single-unit installed capacity of 1,750MW. Both nuclear power generating units use EPR technology. Taishan Nuclear Power Station was invested and constructed by a Sino-French joint venture and adopts the third-generation nuclear power technology of EPR.

# Production Capital

## Management Strategy

Since the Daya Bay Nuclear Power Station commenced commercial operation, the number of nuclear power generating units in operation and under construction managed by the Company increased to 28, and the number of nuclear power bases increased from 1 to 6. The management scope and management difficulty of the Company increased. We optimize our management strategies as always. Over the years, through consistent implementation of benchmarking, we carried out multi-layered safety supervision and evaluation, promoted the SCS management, continuously promoted safety management of the Company to enable the Company to continuously adapt to changes of internal and external situations, thereby promoting our ongoing improvement in operational level and performance in the process of growing business scale.

## SCS Management

To maintain the safe and stable operation of all operating units, ensure successful commencement of commercial operation of units under construction and achieve good operational performance of all bases, the Company has implemented SCS management on all nuclear power bases.



For specialization, the Company owns specialized companies including CGN Operations, CNPRI, SNPI and CGN Engineering, to promote refueling outage, engineering modification, equipment management, spare parts management as well as design and construction of NPPs. In addition, regarding major projects, we form technical teams made up of professionals from various NPPs and specialized companies to be responsible for the implementation of the projects.

For centralization, we continuously enhanced economy of power generating units and maximized overall value through centralized management such as by means of optimized resources allocation, effective operation of centralized platform and information sharing.

For standardization, we established the OPST (Organization, Procedure and process, Knowledge and skill and System tools) management model for key operating areas, which are unified organization and management system, unified skill standards and procedure and process system, unified job qualification and authorization training system, and unified operation management tools.



Yangjiang Nuclear Power Station

# Production Capital

## Safety Management

Nuclear safety is the bedrock of nuclear power companies. We adhere to the principles of “Nuclear Safety is Paramount” and “Safety First”. These principles are reflected throughout all stages in the design, construction and operation of the NPPs. The overall goal of nuclear safety is: to establish and maintain an effective defense system in NPPs for protecting people, society and the environment from radioactive hazards. In the operations of NPPs, we always put safety first, strictly abide by the national laws, regulations, guidelines and standards, and earnestly fulfill our commitments, out of our conviction that “only a safe NPP can be economical”. The Company is committed to the safety culture construction with “demonstration by leaders, implementation by core members, participation by all employees”, and has set up a complete safety management system with defense-in-depth management principle, adopted highly transparent and effective experience feedback, carried out wholly independent safety supervision and evaluation and established emergency response and handling mechanism under emergency conditions, so as to ensure the safe, economical and reliable operation of our NPPs and the safety of the society and the public.



### Adherence to principles

Nuclear Safety is paramount  
Safety First



### Overall goal

to establish and maintain an effective defense system in NPPs for protecting people, society and the environment from radioactive hazards



### Defense-in-depth Nuclear Safety Management System

For NPPs under our management, not only a defense-in-depth barrier has been established through physical isolation and multiple redundancy during the design phase to ensure its intrinsic safety while learning from the foreign nuclear accidents, the guiding principles for defense-in-depth have also been applied in the safety management system in the construction and operation phases to establish defense-in-depth barriers for prevention, monitoring and corrective actions to cope with possible failures of equipment, personnel and organization, so as to maintain the integrity of three physical barriers for NPPs and minimize the possibility and environmental impact of radioactive leakage to the environment for protecting individuals, the public and the environment. The designs and improvements of all nuclear safety related activities management systems and procedures must take into consideration the establishment of a defense-in-depth barrier and its effectiveness.



### Top-down Nuclear Safety Culture for All Employees

We firmly believe that safety culture needs participation of all employees, and safety culture development is a systematic task involving all employees. We fulfil safety management responsibilities through leader demonstration, strengthening safety barriers and implementing procedural requirements through penetration of core members and participation of all employees, regulating personal safety behaviors through the respect to nuclear safety, promoting the “safety is a must” proactiveness of all employees, and hence converting the principle of “safety first, quality foremost” into the daily working habits of all employees.



**Internal:  
Fully Independent Safety Supervision  
and Evaluation System**

Level	Scope of management	Independent organization/ personnel
I	NPP site	Safety supervision team: Safety engineers
II	Safety management of NPPs	Safety management organization: Independent safety and quality assurance personnel
III	Safety management of multi-site plants: covers a total of eight areas including nuclear safety management, operation, maintenance, technical support, radiation protection, fire protection, chemistry and environment as well as building management	Center of Independent Supervision and Assessment for Nuclear Safety

## External

We are also subject to the random and targeted inspection of the national nuclear safety regulatory authority on NPPs we manage. The national regulatory authority also oversees and checks our compliance with nuclear safety regulations.

We regularly organize and invite our international peers to carry out safety assessment for the NPPs we manage, in order to improve our weakness and also effectively share the good safety management practices of international peers and continuously improve our safety management level.



## Highly Transparent and Effective Experience Feedback System

The NPP experience feedback system is an integral part in the safe operation of an NPP. Our experience feedback system is based on detection of events. It adheres to a transparent event reporting system for root cause analysis, developing corrective actions targeting at root causes, and forming a dynamic and transparent experience feedback system to prevent recurrence of events. While focusing on feedbacks for issues arose and experience gained during the operation and management of NPPs, we also regularly conclude and strengthen our good practices, and learn from external experience and feedbacks through continuous exchanges with peers to facilitate enhancement of our safety management.



## Vigilant Nuclear Emergency Response and Handling System

In order to respond quickly and effectively to nuclear emergencies, NPPs must have well-conceived general contingency plans and adequate emergency preparations, and establish a vigilant nuclear emergency response and handling system. We have a full-coverage emergency management system focusing on nuclear emergency response, a multi-layer emergency defense mechanism, professional emergency response facilities, and adequate qualified emergency response personnel. We have implemented a comprehensive emergency preparedness system in all NPPs we manage and organized different scales of emergency exercises in a timely manner to ensure rapid response to any emergencies.

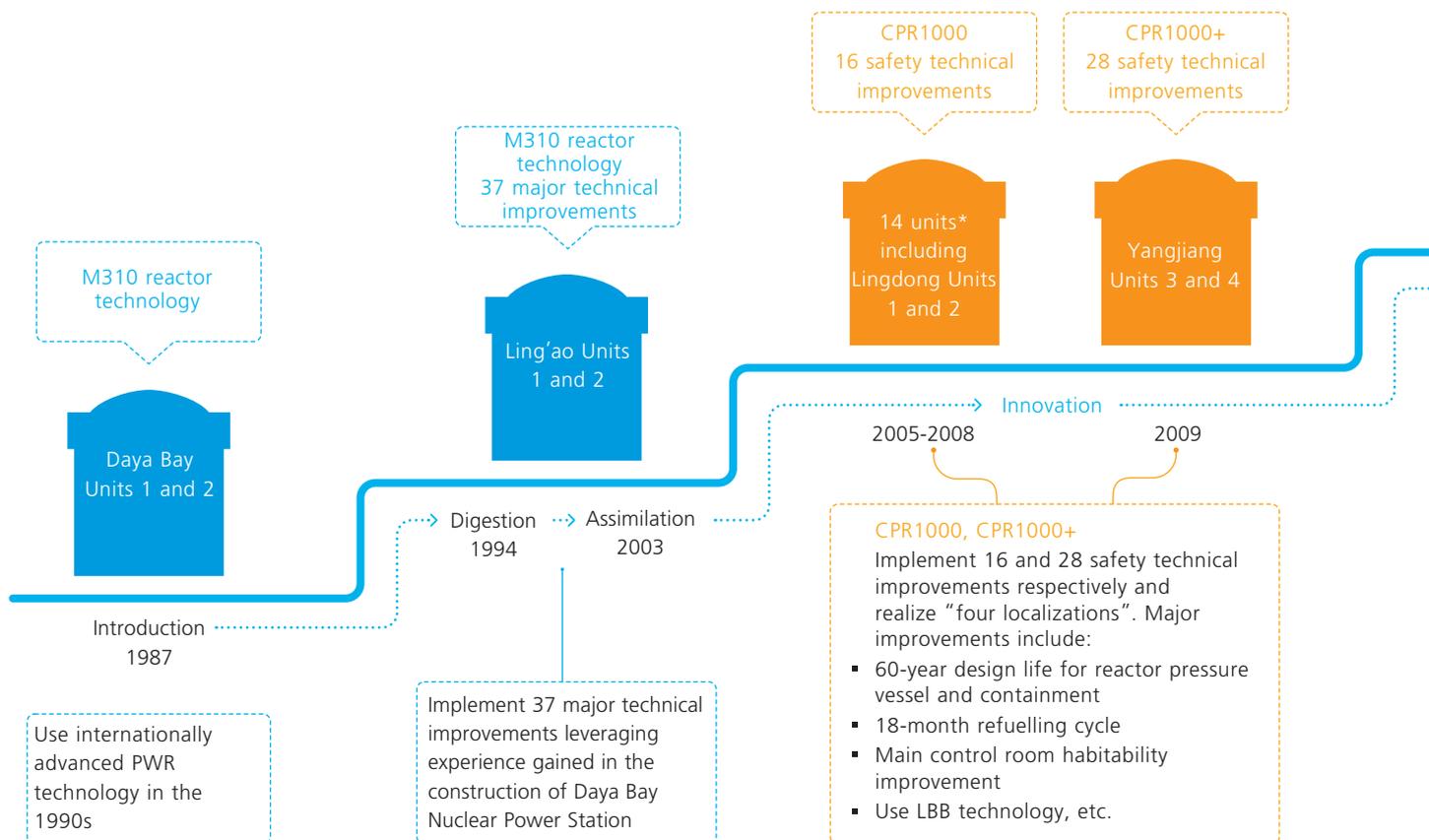
# Intellectual Capital

Strong technical foundation and technical R&D capabilities are among the core resources for our sustainable development. We always focus on technical R&D that improves our business performance to enhance our competitiveness and growth.

## Selection and Development of Nuclear Technologies

We focus on the development of PWR technology. Since the construction of Daya Bay Nuclear Power Station in 1980s, we have persisted in the path of "Introduction, Digestion, Assimilation and Innovation" ("引進、消化、吸收、創新"), and have consistently improved our technology and carried out independent innovation.

On the foundation of the M310 reactor technology used by Daya Bay Nuclear Power Station, we implemented a series of major technological improvements (including 16 safety technology improvements) to create the advanced second-generation CPR1000 series nuclear power technology with our own brand. In reference to the latest international safety standards and feedbacks of the latest experience, we have implemented 31 safety technical improvements on the foundation of the CPR1000 technology to develop and create the ACPR1000 technology which has the major features of third-generation nuclear power technology.

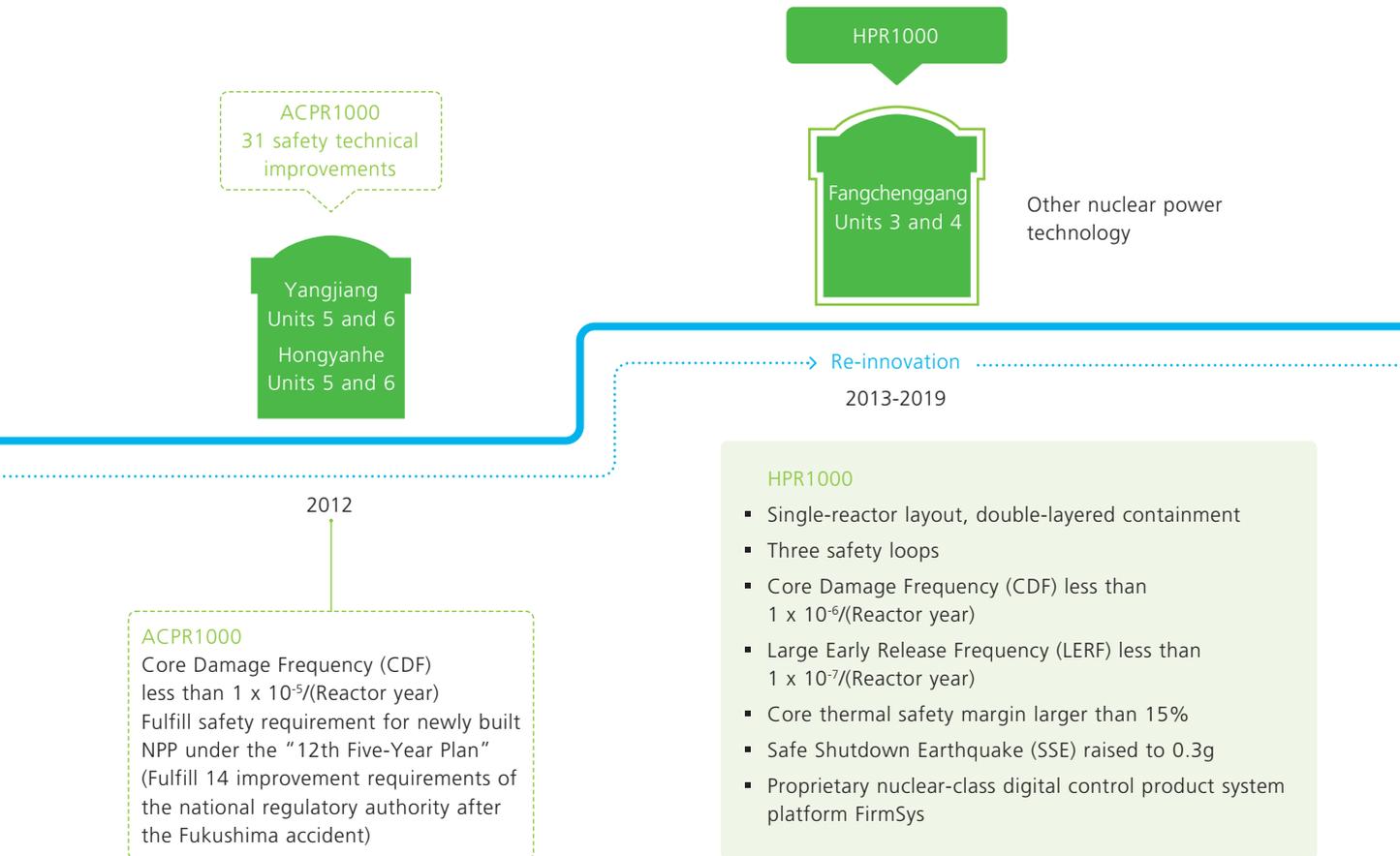


\* Including Lingdong Units 1 and 2, Hongyanhe Units 1-4, Ningde Units 1-4, Yangjiang Units 1 and 2 and Fangchenggang Units 1 and 2

We researched the proprietary intellectual property rights of the third-generation nuclear power technology HPR1000. HPR1000 is a gigawatt-level third-generation nuclear power technology with proprietary intellectual property rights developed on the basis of experience, technology and talents from the PRC's NPP design, construction, operation and development for more than three decades. Compared with other third-generation nuclear power technology, HPR1000 enjoys full competitiveness on safety and economy aspects. The independent development of HPR1000 has laid the technical foundation for subsequent nuclear power development of the Company. Fangchenggang Units 3 and 4 are the demonstration projects of the HPR1000 technology and the reference plant of Bradwell B Project in the United Kingdom in the future. Fangchenggang Units 3 and 4 have commenced construction on December 24, 2015 and December 23, 2016, respectively. The construction of the two generating units is currently progressing smoothly in general. Huizhou Unit 1 managed by the Company as entrusted by the controlling shareholder of the Company also adopts HPR1000 nuclear power technology and has commenced construction recently..

The PRC has made it clear that the third-generation nuclear power technology will be the main stream in the future nuclear power projects. We have already mastered the major third-generation nuclear power technology in the world and possess the corresponding construction and maintenance capacity.

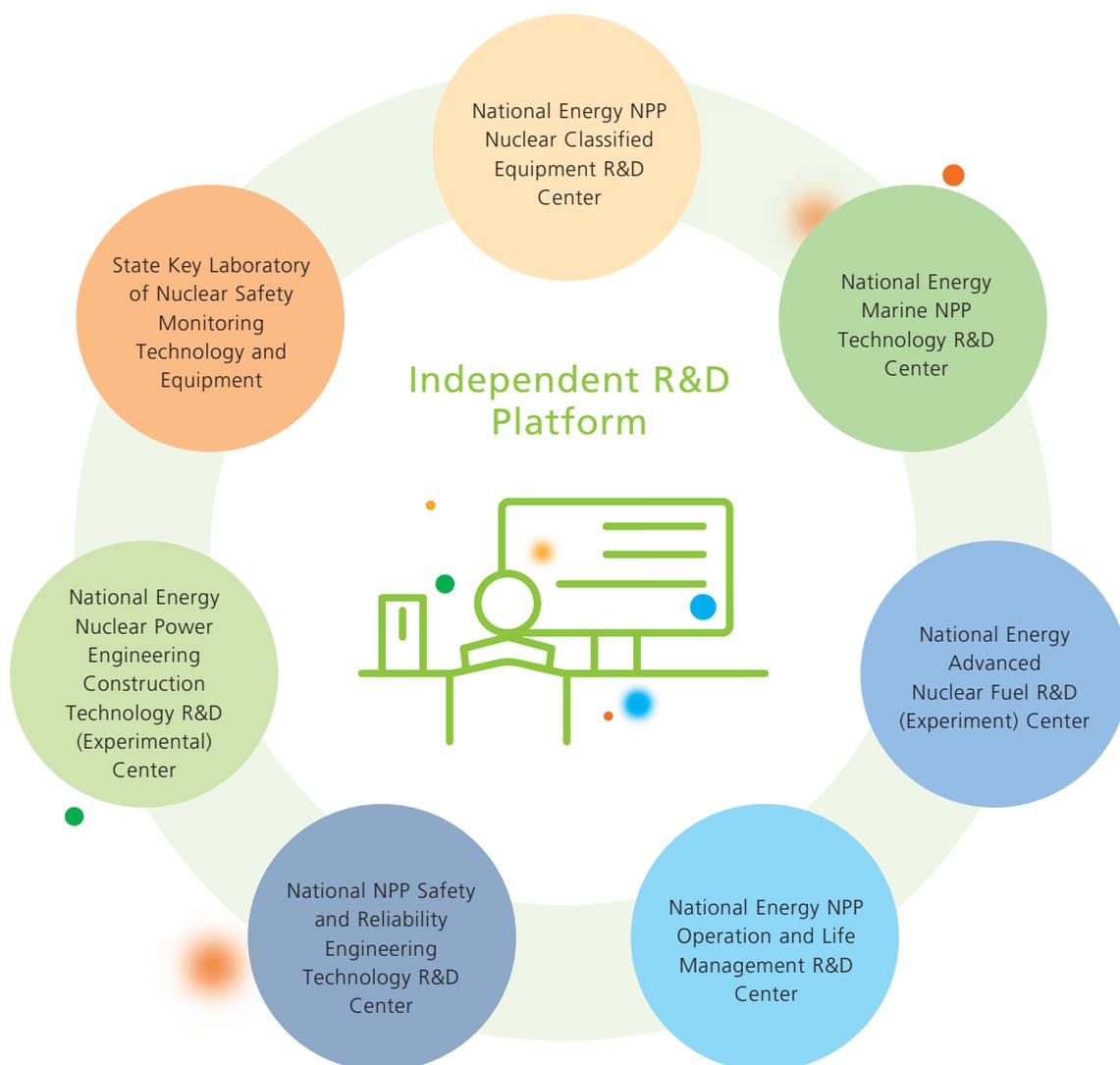
While developing small modular reactor technology, we continue to track the latest development of fourth-generation reactor technology at home and abroad, and actively participate in the R&D of related technologies to maintain competitiveness and lay the foundation for the sustainable development of the Group.



# Intellectual Capital

## Independent R&D Platform

We have developed R&D platform of our Company. We own seven national R&D centers and key laboratories, and have established a number of large laboratories of advanced level within the industry. The establishment of independent R&D platform will help shorten the transformation cycle of scientific and technological achievements, improve the maturity, matching and engineering level of existing scientific and technological achievements, accelerate the reform of our production technology, promote the upgrading of technology, and provide us with basic technical support for enhancement of R&D capacity. As at the end of 2019 we had more than 4,732 R&D staff.



## R&D of Key Technologies

Relying on our own R&D platforms, we continue to study and solve key technical issues in the construction and operation of NPPs, and continuously improve the safety, reliability and economy of units. We have also promoted part of the key technologies to markets outside of the Group, thus increasing our business opportunities.

We have successfully developed a number of technical innovations, and we will select some of our important achievements every year to introduce in our annual report. We continue to introduce some of the major technologies recently applied as follows.

Name of technology/equipment	Summary of the technology	Benefits
Three-dimensional Visualized Cabling System of Nuclear Power	<p>The Three-dimensional Visualized Cabling System of Nuclear Power is the first 3D visualized cabling system in the PRC that conforms to the design specifications of nuclear power cabling. It can display the cabling design results in three dimensions in real time, and is equipped with functions including automatic cabling and overcapacity alarm. The path search time of cabling for a single cable is less than 3 seconds, and the cable path searching efficiency in large projects is improved by nearly two orders of magnitude as compared with its foreign counterparts. It is applicable to various situations of cabling design after being configured. It resolves key issues such as manual cabling design, absence of visual interface, absence of database management, absence of full life cycle design process control, and difficulty in the coordination of upstream and downstream design professional data, reduces a lot of manual data processing and design errors, and significantly improves design efficiency and quality. The system also publishes the cabling design results to the construction site, providing more intuitive and convenient guidance for the cabling workers of nuclear power facilities.</p> <p>This equipment broke up the monopoly of foreign countries, and reached an internationally advanced level.</p> <p>The system was deployed at Ningde Nuclear Power Station, Yangjiang Nuclear Power Station, Hongyanhe Nuclear Power Station, Fangchenggang Nuclear Power Station and Taishan Nuclear Power Station.</p>	<p>Achieved independent domestic software development and enhanced economical efficiency</p>
Loss of Coolant Accident (LOCA) Margin Surveillance System	<p>LOCA Margin Surveillance System conducts quick calculation of reactor thermal power and reconfigurable computation of core power distribution through capturing the current-saving signals and reactor thermal signals from neutron detectors in the nuclear instrument system outside the reactor. It helps the operators in main control room understand the actual operating status of the reactor core by providing real-time data such as curves, charts and numerical values in order to assist the operators in controlling the reactor.</p> <p>This system broke up the monopoly of foreign countries, and filled the gaps in this field in the PRC. It reached domestically leading and internationally advanced levels.</p> <p>Currently this equipment has been supplied to Daya Bay Nuclear Power Station, Ling'ao Nuclear Power Station, Yangjiang Nuclear Power Station, Fangchenggang Nuclear Power Station, and domestic Nuclear Power Station, for a total of 14 units. The operation of the equipment is in good condition.</p>	<p>Achieved autonomy and improved economical efficiency and safety.</p>

# Intellectual Capital

## Intellectual Property Rights

Technical improvements and innovations can enhance the operational and safety performance of NPPs, and at the same time we also pay attention to acquire intellectual property rights accordingly during the course of technical R&D. We believe that owning these intellectual property rights will strengthen our competitiveness.

Statistics of our intellectual property rights from 2014 to 2019

Patent (Item)							Authorship Registration (Item)	
Year	Patent Application			Patent Licensing			Software	Others
	Invention	Utility Model	Design	Invention	Utility Model	Design		
2014	292	198	0	54	249	1	51	4
2015	285	229	0	101	241	0	107	2
2016	458	272	2	239	234	6	128	22
2017	437	413	3	269	267	1	140	25
2018	600	443	3	229	424	2	138	9
2019	644	461	5	297	440	7	155	22
Total	2,716	2,016	13	1,189	1,855	17	719	84

# Human Capital

Having a team of sufficiently competent and experienced employees is the most valuable treasure of the Company. We always pay attention to the reasonable use and maintenance of human capital, and continuously improve the development and management system of human resources, thus cultivating a talented team with excellent management and technical personnel.

## Talent Force

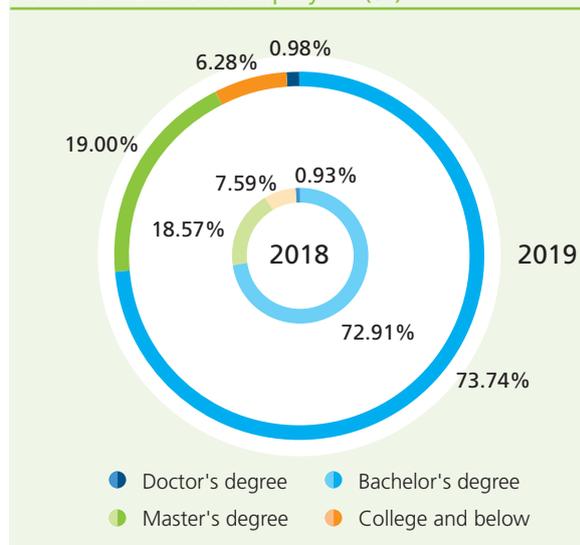
As at the end of 2019, we had 18,383 employees (excluding our affiliates).

## Employee Structure

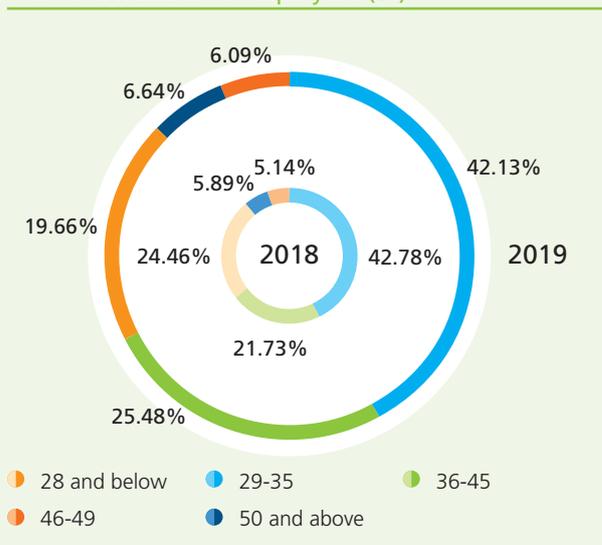
### Composition of employees in terms of profession

Profession	Number of Employees	
	2019	2018
Administrative employees	1,414	1,360
Technicians	16,969	17,303
Total	18,383	18,663

Academic qualification expressed as a percentage of total number of employees (%)



Age expressed as a percentage of total number of employees (%)



## Recruitment of Talents

To meet the needs of the Company's business development, safeguard a reasonable structure of our talent force and make adequate talents available, the Company has formulated a human resources plan to recruit talents through a combination of on-campus recruitment and general hiring.

Due to the scarcity of nuclear power related professionals, the supply of external talent market is relatively low, considering from the perspectives of the echelon formation and talent cultivation, our recruitment of talents is focused on on-campus recruitment. In 2019, the Company recruited a total of 276 persons, among whom, 211 outstanding graduates were recruited through on-campus recruitment and 65 persons through general hiring.

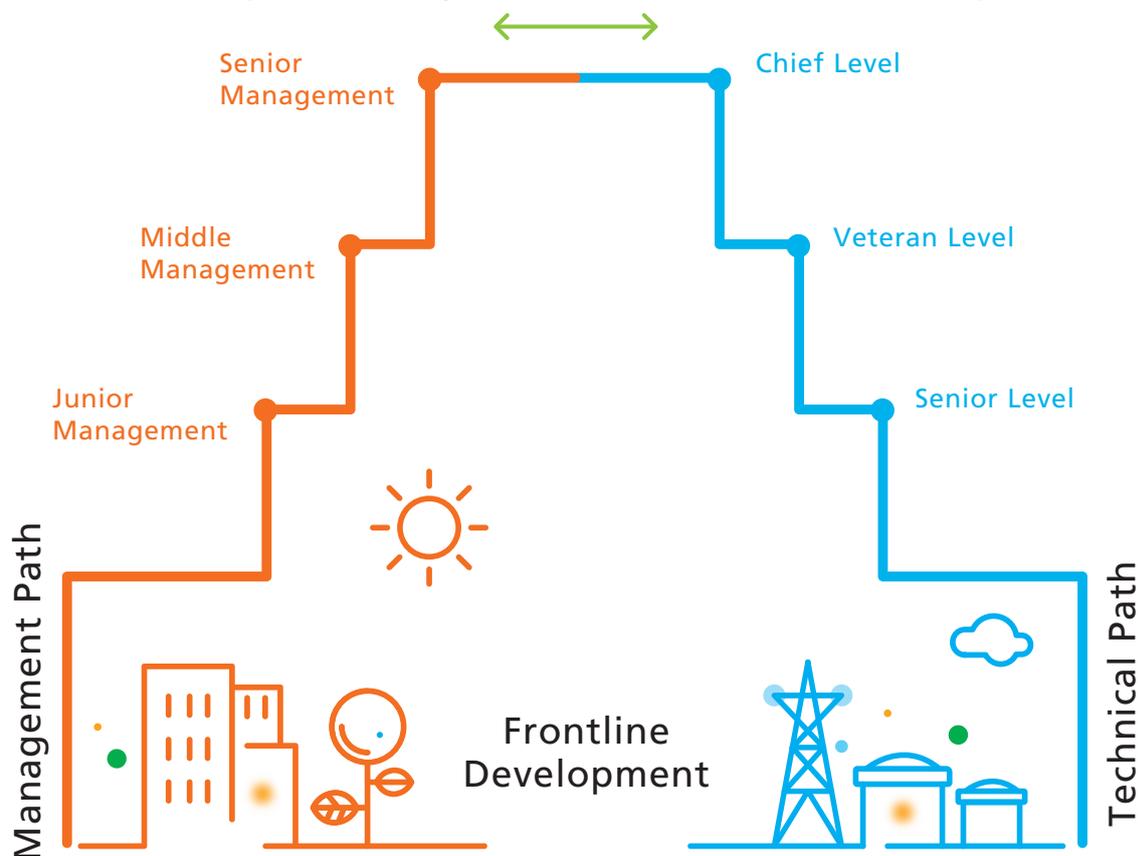
# Human Capital

## Personnel Management

### Development Paths

We respect the contribution made by each employee, pay attention to the career development of employees, and encourage employees to develop individual career development plan under the guidance and assistance of the Company. We offer two career development paths for management and professional skills, and have established mechanisms for conversion between the two paths that employees can achieve their own career development through the two paths according to their competence, potential and characters.

### Two-channel promotion System for vertical and horizontal positions



## Internal Market

The Company encourages employees to concentrate on their own positions to master the business skills, becoming experienced professionals. At the same time, by incorporating the development strategies of the Company and personal development goals of employees, we continually improve the market element in the internal employment system and facilitate the reasonable and orderly flow of talents, thereby enhancing our allocation efficiency of human resources, realizing appreciation in human capital as well as offering more development opportunities for employees.

## Appraisal System

The Company is committed to the creation of a high performance organization. We pay attention to performance achievement of employees and organizations to ensure achievement of overall operation objectives of the Company. Through devising individual performance plans, we put the Company and our organization's goals into the work plans of employees at all levels, and carry out communication, counseling and follow-up during the course of the implementation of the plan. We mainly evaluate employees' work performance according to the performance plan, and the evaluation results will be used for payment of bonuses, remuneration adjustment, term assessment and personal development, etc., highly connecting personal development to organization development. Every employee can contribute to the attainment of the organization's goals and achieve personal development therefrom.

## Personnel Training

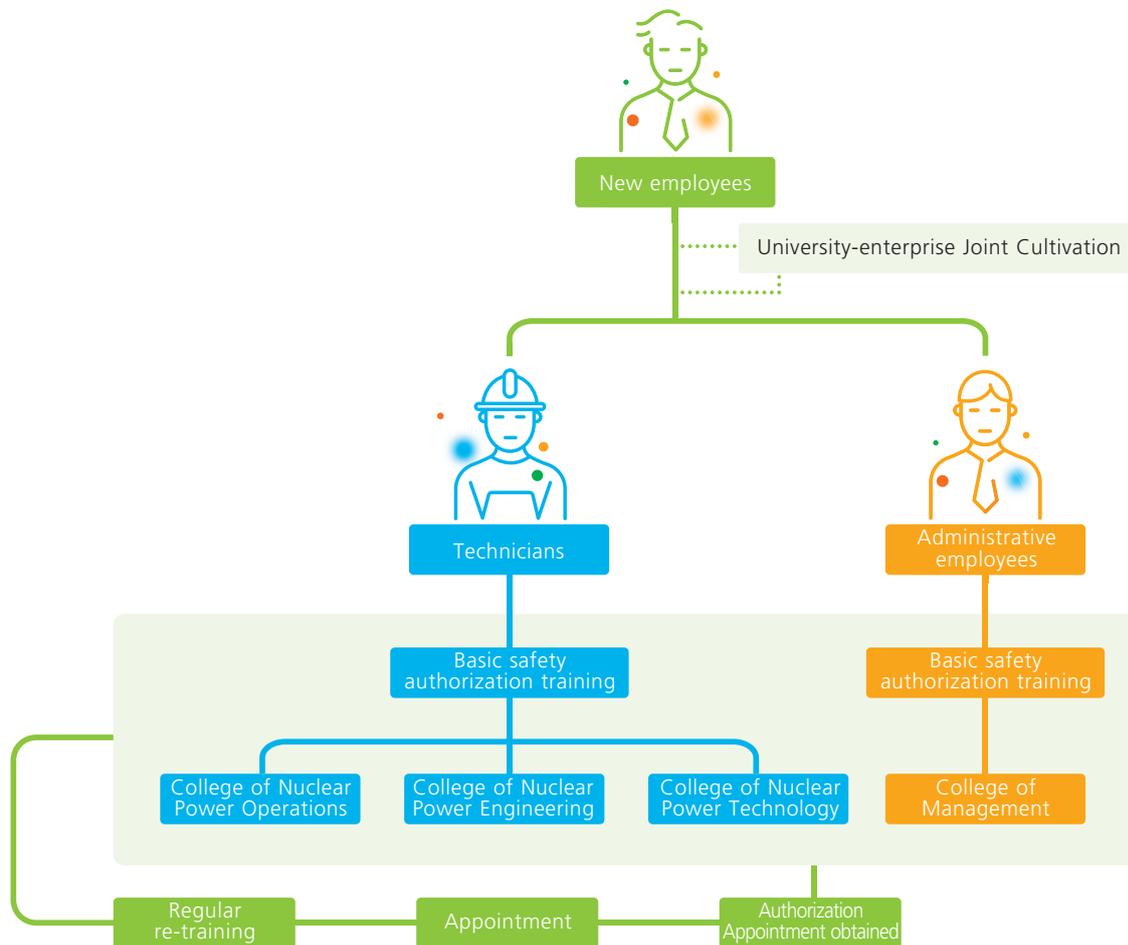
With the stable development of our businesses, the Company emphasizes ongoing enhancement of the working skills of our employees. The Company always adheres to the core principle of "cultivate people and not just train people" and implements the basic requirements of "entire staff training, authorized employment and life-long learning". Through learning from international advanced experience in personnel training, combined with our development characteristics, we have developed our personnel training system as well as a standardized and efficient training management system. We have a group of experienced and qualified teaching staff, comprehensive curriculum and large-scale training facilities, and actively promote standardized and regulated personnel training for nuclear power operations, which has effectively met the needs of personnel training for the stable development of the Company.

To match with the business development of the Company, we regularly renew the personnel training scheme. We had prepared our talent succession plan 2019 in accordance with the medium and long-term planning needs for talents and the feedback on training experiences. In order to consolidate and enhance qualities and skills of management staff and employees at all levels, we organize trainings continuously. In 2019, the average training hours per employee of the Group was 146 hours.

## Personnel Training System

The Company entered into personnel training cooperation agreements with a number of universities in China, pursuant to which some of the new employees study specialization courses on nuclear power during their university education. The Company has College of Nuclear Power Operations, College of Nuclear Power Engineering, College of Nuclear Power Technology and College of Management, with "training, assessment, authorization, appointment" as the basic process, which have formed the training system for all employees.

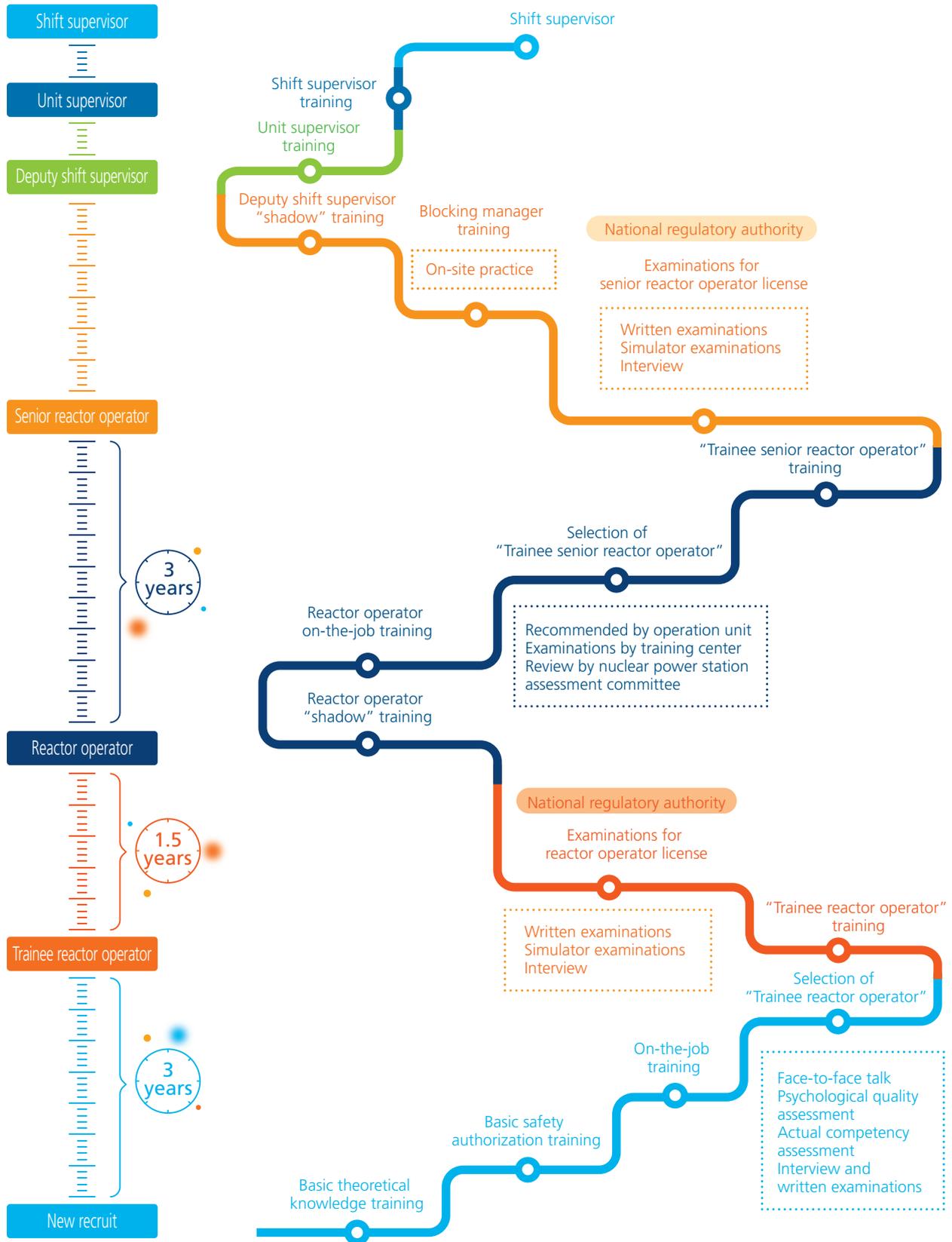
# Human Capital



Nuclear power reactor operators are the key technical staff in NPPs. According to the relevant requirements of the Regulations of the People's Republic of China on the Safety Supervision and Administration of Civil Nuclear Facilities 《中華人民共和國民用核設施安全監督管理條例》, operators should hold a "Reactor Operator License", shift supervisors should hold a "Senior Reactor Operator License", while the qualification of reactor operators and senior reactor operators is recognized through systematic assessment of abilities which are supervised and licensed by the national regulatory authority.

We set a position of safety technical advisor ("STA") in our NPPs. They are responsible for safety supervision of plants and conduct independent assessment and supervision on nuclear safety of daily operation of units. Same as the shift supervisors, STA is required to hold "Senior Reactor Operator License". In addition, an STA shall have a deep understanding of the regulations on nuclear safety, standards of designing NPPs, analysis methods of nuclear safety and other aspects.

The diagram below shows our training process for reactor operators.



Note: Licensed reactor operators are qualified to operate nuclear facilities' control systems, and licensed senior reactor operators are qualified to operate, guide or supervise the operation on nuclear facilities' control systems.

# Human Capital

With reference to the construction progress of third-generation nuclear generating units, we strengthened the nurturing of reactor operators, construction personnel and operation and maintenance personnel required for the third-generation nuclear power technology, such as HPR1000, EPR, and AP1000. For example, in 2019, we finished the training of the first batch of "HPR1000 Operation and Control" theory course and the implementation of the first simulator course, identified the key positions of HPR1000 core business operation and the required core capabilities, and formulated training plans for the training targets to meet the ability requirements of HPR1000 project to advance and operate safely and stably.

## Training Resources

As there are many potential major risks in nuclear power units in operation, we have prepared corresponding training equipment to equip employees with proficient operation skills before their hands-on operation. For example, to cultivate reactor operators, we have the 1:1 simulator with the main control room. For different purposes, our main simulators include full-scope simulators, principle simulators, function simulators, post-accident analysis simulators and severe accident analysis simulators.

As of the end of 2019, the numbers of simulators of all nuclear power bases were as follows:

	Full-scope Simulators (set)	Principle Simulators (set)	Function Simulators (set)	Post- accident Analysis Simulators (set)	Severe Accident Analysis Simulators (set)
Daya Bay Nuclear Power Base	4	2	2	1	1
Yangjiang Nuclear Power Base	3	0	0	0	0
Taishan Nuclear Power Base	1	0	0	1	0
Fangchenggang Nuclear Power Base	2	1	0	0	0
Ningde Nuclear Power Base	2	0	1	0	0
Hongyanhe Nuclear Power Base	3	0	0	1	0

For maintenance techniques training, we have 140 skills training rooms (including the refueling training facilities) with a total area of about 80,000 square meters, covering all maintenance areas and skills, which can carry out 410 training items. In particular, the Nuclear Fuel Operation Training Center is the only training and qualification examination certification center in the PRC for nuclear fuel operators which simulates real situations. In 2019, 26 fuel operators were trained, including 14 fuel operators from domestic counterparts.

The Company develops and improves corresponding curriculum based on post training programs. As of the end of 2019, we had a total of 11,000 courses, adopting forms including face-to-face training, online training, mobile-app training and courses in other forms, which satisfy the need of the current stage of the Company's business development.

We value the sharing of our employees' accumulated experience and have established the system of key employees acting as part-time instructors to enrich our training resources for many years. Currently, we have 211 full-time instructors and 773 part-time instructors. We also require management to participate in tutoring to share their knowledge and experience. In 2019, the average teaching hours of management was more than 7.7 hours.

## Forms of Training

Our trainings include face-to-face training, online training, face-to-face and web-based mixed training, as well as conducting staff skill competitions in various major fields. Based on the direction of scientization, standardization and professionalization, we continuously innovate competition format, raising competition levels and widening technology communication channels among employees. In 2019, we continued to host the Guangdong Province "Instrumentation and Control Design and Repair Occupational Skills Competition". More than 353 competitions at base level were conducted and participated in by various companies, involving more than 16,000 participants. Through a wide range of skill competitions, the training forms were enriched and a strong learning atmosphere had been created, which enhanced the overall quality of staff.

## Achievement of Talent Cultivation

With reference to our man-power allocation of reactor operators in NPPs, the reactor operators holding valid licenses of the Company can fulfill personnel requirement for managing dozens of nuclear power generating units at the same time. As at December 31, 2019, the Group (including affiliates) had 534 reactor operators and 877 senior reactor operators holding valid licenses. 92 and 130 employees of the Group (including affiliates) obtained licenses for reactor operators and senior reactor operators in 2019, respectively.

Relevant qualification of employees provides firm support and professional assurance on the Company's strategic development and business expansion. As of December 31, 2019, a total of 125 employees obtained or maintained registered qualifications in respect of construction projects, including 6 registered First Class Architects; 2 registered second class architects; 5 registered consultant engineers (new energy); 17 registered utility engineers (heating, ventilation and air conditioning); 15 registered utility engineers (water supply and drainage); 36 registered utility engineers (power); 44 registered electrical engineers (power generation and transmission). In addition to the main businesses, the Company had the ability to integrate and carry out other engineering project management and general contracting services.

In addition, at the end of 2019, 91 employees of the Group (including the associates) participated in the training for fuel operators and passed certification examination to obtain the qualification for fuel operators.

In 2019, we achieved great honors in talent cultivation. For the production line, Qiao Sukai, our nuclear fuel operator, won the honorary title of "Meritorious Craftsman"; and Ran Di, our operator, won the honorary title of "Labor model of State-owned Enterprises". For the R&D line, Wang Ting was recognized as a "National Good Youth Making Progress with Good Deeds". Yu Chao from the R&D line, Xu Changheng from the production line and Xue Bin from the engineering line won the first three places in the "2019 Guangdong Nuclear Power Plant Reactor Physical Design and Test Skill Competition". These honors were not only rewarding individuals, but also affirming our years of efforts in talent cultivation. The training of these professional talents provided strong support for the safe and stable operation of our nuclear power generating units.

# Human Capital

## Remuneration System

Remuneration as returns to employees for their performance of duties and creation of values is the most fundamental reflection of their value. We use employees' duties, capacities and performance as the basic standards to assess their value.

Pursuant to the national laws and regulations and in light of the industry characteristics, the Company has established a competitive and ongoing strategy-driven remuneration management system to specify the concept of creating value and stimulate employees' potential. The remuneration system is mainly in the form of a position-based wage system, under which the Company implements the "remuneration changes with position" policy and determines employees' remuneration level based on their duties and capabilities (skills) in the principle of "remuneration based on duties and capabilities, remuneration based on performance, and adjustment based on capabilities and performance". The Company has also established a performance-linked remuneration system under which the performance bonus is adjusted based on the performance of employees.

In order to provide incentives to key talents and create more value for our shareholders, the H-Shares Appreciation Rights (the "SAR") Scheme (the "Scheme") was approved at the 2014 annual general meeting. The Scheme is expected to be conducted in three grants with each grant taking effect in three tranches. The implementation plan for the first grant of the SAR was approved by the Board of Directors on November 5, 2015. At present, the three tranches of SAR for the first grant have all taken effect, and no exercise have occurred because the exercise price are not yet reached. In which, the first tranche of SAR was expired and lapsed on December 16, 2019.

The implementation plan for the second grant of the SAR was approved by the Board of Directors on December 14, 2017. At present, the first tranche of SAR for the second grant has taken effect on December 16, 2019, with the exercise conditions met. As at 31 December 2019, the SAR under the second grant of the SAR of the Scheme were not exercised.

For retired/redesigned Directors and senior management, the specific arrangements for the exercise are implemented in accordance with the SAR Agreement. Since the Scheme does not involve the grant of any new share or share option over other new securities to be issued by the Company (or any of its subsidiaries), it does not fall within the ambit of, and is not subject to, the regulations of Chapter 17 of the Hong Kong Companies Ordinance and the Rules Governing the Listing of Securities on the Hong Kong Stock Exchange (the "Listing Rules"). Please refer to Note (XI) of the financial statements in the Annual Report for details of the first and second grant of the SAR.

The Company highly values the protection of employees' rights and interests, and has brought social security (with 100% coverage), supplemental medical insurance and enterprise annuity for employees. We attach high importance to the health of our employees and organize annual health checkup for employees. In addition, according to the national laws and the practical conditions of the Company, we have vacation management policies that allow employees to have paid leave. The Company also encourages employees to reasonably arrange their vacations for work-life balance.

## Occupational Health Management

We are highly concerned about the occupational safety and health of our employees. By strictly adhering to the provisions of occupational safety and health of the State, the Company has established a comprehensive occupational safety and health protection system, set up specific organizations in all NPPs to take charge of occupational safety and health management, and obtained the certification of OHSAS18001 occupational safety and health management system. With the release of the latest ISO45001 occupational safety management system standards, some of our NPPs have obtained the certification on the latest standards in 2019, and the remaining NPPs will also obtain the certification on the latest standards when their certification documents expire.



### Identification and management of occupational hazards

Through identification and evaluation of occupational health hazards in various types of work processes, we control occupational health risks, undertake graded management of the risks of exposures and hazards, and adopt a series of measures and means such as technologies, management and individual physical protection, safeguarding the health and safety of employees.



### Full participation and proactive prevention

The Company emphasizes on the full participation and proactive prevention regarding occupational health and focuses on continuous control and improvement of occupational health management level. We actively carry out occupational hazard monitoring, conduct independent monitoring and evaluation of occupational health and safety risks through daily work processes, and take timely control measures in accordance with the principles of elimination, isolation, reduction and personal protection to protect and enhance the health and safety level of employees. The premises with occupational health hazards are equipped with protective equipment such as ear protectors, protective suits, protective shoes, and the working time limit is specified according to occupational hazard assessment.



### Publicity, training and warning

The Company actively undertakes activities such as occupational hazard publicity and training, and informs employees of the types of occupational hazards that may exist in work and protective methods, etc., so that employees are able to understand and master correct protective skills. Meanwhile, the Company posts warning signs and on-site test results at relevant workplaces. Through such publicity and education, we enhance employees' self-protection awareness and ability and help them consciously change unsafe work habits.



### Professional inspection by external organizations

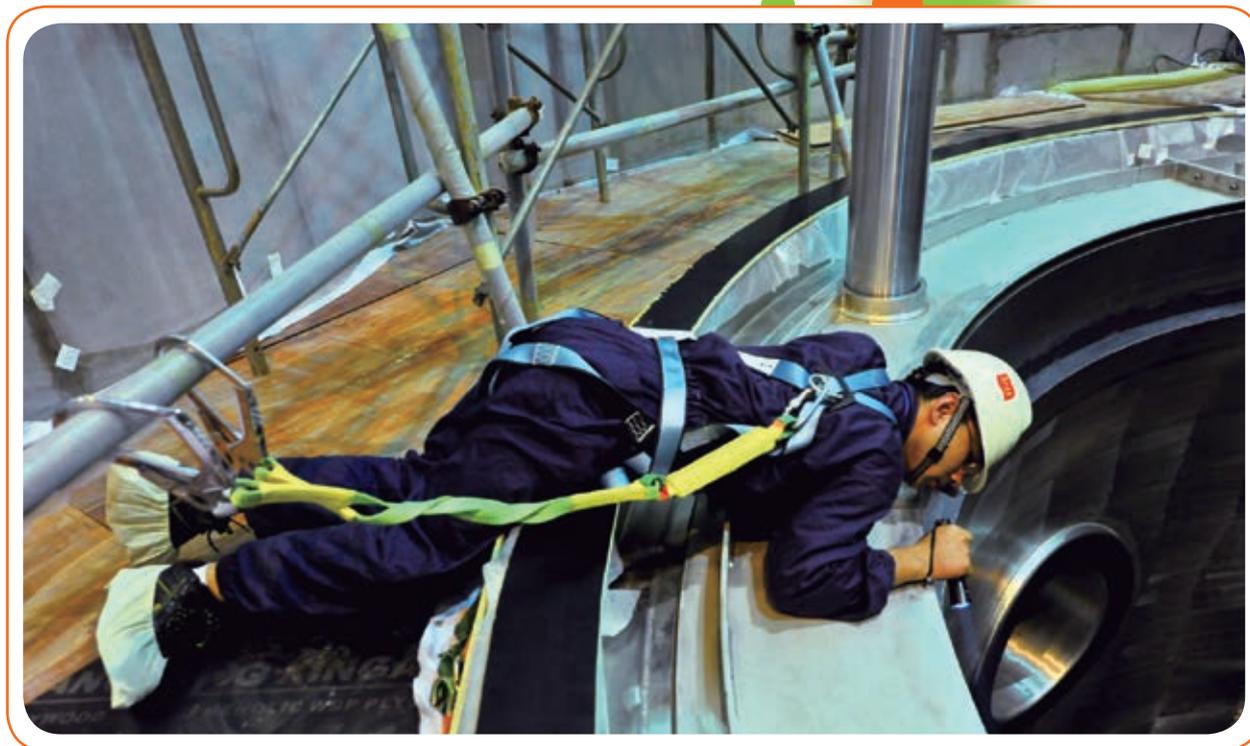
The Company engages external professional organizations every year to undertake occupational health inspection on employees of some positions (including radioactivity, noise, high temperature, chemical poisons (ammonia), and high pressure, etc.), mainly including pre-job, on-job and off-job inspection. Personal health files are established. Occupational contraindications and occupational health damage are identified through inspection. We conduct individual and group health analysis and assessment of adaptability to work, so as to ensure health conditions of employees are compatible with working conditions they are engaged in, and undertake target intervention in accordance with inspection results.

# Human Capital

In addition to physical health, the mental health of employees is equally important. We introduced the 「Employee Assistance Program」 to protect the mental health of employees by inviting professionals to provide professional services such as 7×24 hours of psychological consultation and counseling.

Due to contractors' direct participation in a large number of construction and operation activities of NPPs, we assume the responsibilities of ensuring employees' occupational health and safety not only to the Company's own employees, but also to employees of such contractors as well as to other persons who have normal access to NPPs to carry out the relevant activities. The maximum individual radiation dose rate of workers entering control zone of each NPP operated and managed by us (including employees, contractors and other people) is far lower than the management target value of NPP and also far lower than the limit of national laws and regulations. For details of maximum individual radiation dose rate of NPPs, please refer to the 2019 ESG Report published by the Company.

Employees are our most valuable assets, and we always strive to ensure their safety. In addition to the management measures mentioned above, we pay extra attention to all the safety events in the work process. We thoroughly investigate all events and conduct root cause analysis, conduct feedback among our NPPs to raise the safety awareness of staff and contractors, and adopt a series of measures to enhance safety management and avoid recurrence of such events. We strive for continually lowering the rate of industrial accidents. In 2019, the Company maintained good performance of occupational safety and health. All NPP staff were able to complete the relevant work safely and efficiently in accordance with the procedures. For details of the performance in relation to occupational safety and health issues as well as mental health of employees, please refer to the 2019 ESG Report published by the Company.



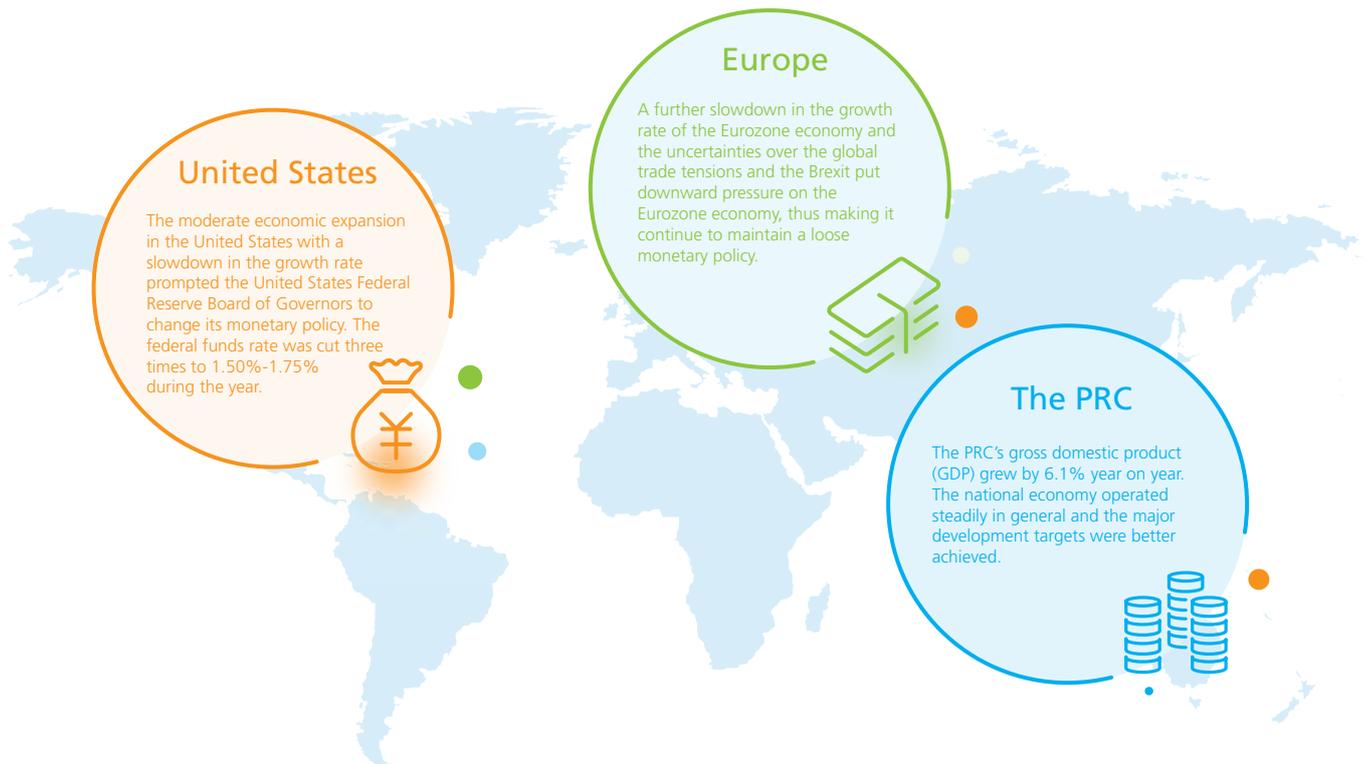
Site workers implementing safety measures in strict compliance with standardized procedures

# Financial Capital

Our capital needs mainly come from the capital expenditure for construction of NPPs and facilities, payments of debts and interests and operating expenditure in nuclear power projects in operation. The sources of capital include cash generated from operating activities, shareholders' cash investment, bank borrowings and bond issuance.

## External Financing Environment

In 2019, there was a slowdown in global economic recovery and the greater downward pressure on the economy due to trade frictions and geopolitical tensions.



In 2019, the monetary policy in the PRC was neither loose nor tight but moderate. The liquidity was reasonably ample and the market interest rate of RMB stayed low. The People's Bank of China reformed and improved the loan prime rate (LPR) mechanism to facilitate the interest rate liberalization reform, and bring the loan rate down. The costs of outstanding corporate loans were stable and the interest rate of new short-term loans was slightly lower. Facing the everchanging internal and external environment, the Company continued to strengthen the organization, coordination and risk monitoring of financing, making full use of internal and external financing channels and ensuring capital security. The Company capitalized on the loose market environment to refinance, thus reducing its financing costs, and effectively leveraged the proceeds from the A share to enhance the return on capital employed.

# Financial Capital

## Financing Patterns

### Equity Financing

With reference to the Company's needs for business development, through equity financing, we consolidated the long-term capital of the Company. The overall capital structure of the Company was optimized according to changes in the external environment. The ability to resist the risk of fluctuations in the external economic and financial environment was consolidated and enhanced, which promoted the sustainable development of the Company's business. For those projects with huge capital expenditure and good earnings forecasts, we will prudently consider the use of equity financing to balance the risks and to enhance shareholders' value.



Net proceeds from  
A share offering of  
**RMB12,389,775,559.44**

On July 26, 2019, the Company obtained an approval under the Approval in Relation to the Initial Public Offering of CGN Power Co., Ltd.\* (Zheng Jian Xu Ke [2019] No. 1381) 《關於核准中國廣核電力股份有限公司首次公開發行股票的批覆》(證監許可[2019]1381號)) from CSRC. On August 9, 2019, the Company published the Prospectus for the Initial Public Offering of Shares (A Shares) of CGN Power Co., Ltd.\* 《中國廣核電力股份有限公司首次公開發行股票(A股)招股說明書》. The Company published the Announcement on A Share Offering Results on August 16, 2019. Under the A share offering, 5,049,861,100 A shares were issued at an issuance price of RMB2.49 per share. The proceeds raised amounted to RMB12,574,154,139.00 in total, and the actual net proceeds amounted to RMB12,389,775,559.44. The above-mentioned proceeds were all received on August 16, 2019, and verified by Deloitte Touche Tohmatsu Certified Public Accountants LLP ("Deloitte") which issued a capital verification report. On August 26, 2019, the A shares of the Company were listed and traded on the Shenzhen Stock Exchange.

### Debt Financing

We strive to maintain diversified types of debt financing to establish a financing model with a mixture of short, medium and long-term funds, a combination of direct financing and indirect financing, and the coexistence of various channels to provide a sound and economic source of funding for the Company. In the course of debt financing, we always follow the balance of cost and safety principle. We seek to obtain competitive financing cost, but the minimum financing cost is not the only goal, otherwise it would impair our financing safety and the service quality we received.

## Diversified Financing Types

Diversified financing types can avoid reliance on a single financing channel and enable us to have adequate options for different types of capital requirements. In view of our large-scale long-term investments and according to our matching assets and liabilities principle, our debt financing instruments are dominated by long-term bank borrowings, as supplemented by short-term bank borrowings and debt financing as well as borrowings from other financial institutions. The major debt financing types of the Group include bank borrowings (accounting for approximately 90%), bond financing (accounting for approximately 5%), entrusted loans and insurance debt financing, etc. As compared with the end of 2018, the Group's total borrowings during the Reporting Period decreased by RMB9,714.4 million, mainly because of the completion of A share offering by the Group to reduce additional borrowings and replace the existing debts. In 2019, the Company optimized debt structure and reduced financing costs by measures such as increasing the scale of direct financing. We also seized market opportunities and issued two tranches of medium-term notes in an aggregate amount of RMB3,000.00 million, and continued to promote note payment in view of not increasing pressure on refinancing. By replacing cash settlement with settlement through commercial bill of exchange, we reduced capital utilization and extended payment term, increasing capital use efficiency. By making full use of the accommodative market, we actively communicated with banks on debt swaps, and continuously reduced financing costs.



## Borrowings from Banks and Other Financial Institutions

We meet our stable capital requirements for long-term and for investments in nuclear power projects mainly through long-term bank borrowings. Reasonable loan terms and repayment schedule are defined to match our long-term cash flows, reduce refinancing risk and ensure the safety of our overall debt. At the same time, we use short-term bank borrowings to bridge the shortfall of working capital, and meet different funding requirements through a combination of insurance debt financing and financing lease.

# Financial Capital

## Domestic Debenture Financing

The Company is a legal entity incorporated in the PRC and is qualified for the domestic public offering of debentures. Our available options in the domestic market mainly include ultra short-term financing notes, short-term financing notes, medium-term notes and corporate bonds, which can meet the requirements of working capital, debt repayment and capital expenditure of projects. The Group's outstanding debentures as at December 31, 2019, and the Group's repaid debentures in 2019 were as follows:

### Corporate bonds



The Company has two corporate bonds with a total face value of RMB4,500.0 million transferred from the controlling shareholder CGNPC (with a term of 10-15 years) which were used for the construction of Lingdong Nuclear Power Station and Yangjiang Nuclear Power Station respectively. Among which, one corporate bonds with a value of RMB2,500.00 million with an interest rate of 4.60% will due in May 2020. The Company plans to settle the amount with its own funds or low-cost financing. After repayment of the bonds, the funding costs of the Company is expected to decrease. In addition, another corporate bonds with a value of RMB2,000.00 million will due in December 2022.

### Medium-term notes



In April 2018, the Company issued two tranches of medium-term notes. The financing amount was RMB2,000.00 million with a term of 3 years and used for repayment of borrowings for subsidiaries;

In August 2018, the Company issued one tranche of medium-term notes. The financing amount was RMB1,000.00 million with a term of 3 years and used for repayment of borrowings for subsidiaries;

In October 2018, the Company issued one tranche of medium-term notes. The financing amount was RMB1,000.00 million with a term of 3 years and used for repayment of borrowings for subsidiaries;

In January 2019, the Company issued one tranche of medium-term notes. The financing amount was RMB1,500.00 million with a term of 3 years and used for repayment of borrowings for subsidiaries and replenishment of liquidity;

In July 2019, the Company issued one tranche of medium-term notes. The financing amount was RMB1,500.00 million with a term of 3 years and used for repayment of borrowings for subsidiaries.

### Private placement notes ("PPNs")



Yangjiang Nuclear, a subsidiary of the Company, had issued five tranches of PPNs in a total amount of RMB3,000.0 million. The terms of these PPNs were all three years. The proceeds were used for construction of Yangjiang Nuclear Power Station. Yangjiang Nuclear repaid the remaining PPNs of RMB2500.0 million in 2019. The five tranches of PPNs issued by Yangjiang Nuclear were all repaid.

Note: The details of our debentures are set out in Note (v) 36 to financial statements.

## Overseas Bond Financing

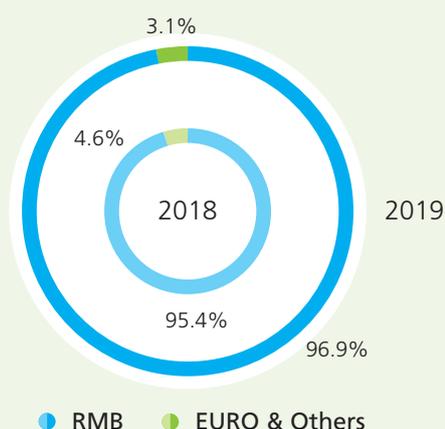
According to the Notice on Promoting the Reform of the Filing and Registration System for Issuance of Overseas Bonds by Enterprises (Fa Gai Wai Zi [2015] No. 2044) 《關於推進企業發行外債備案登記制管理改革的通知》(發收外資 [2015] 2044號) promulgated by the NDRC on September 14, 2015, the Company has the ability and qualification of overseas bond financing and may issue overseas bonds subject to filings with the NDRC. The Company will consider factors including issue price, foreign exchange and tax policies, overseas investment demand and foreign exchange risks to seek opportunities for overseas bond financing activities. Besides, we will carry out international rating according to the overseas financing plan in due course. As of December 31, 2019, the Company has not carried out overseas bond financing.

## Reasonable Currency and Term Structure

With regard to the financing currency, since revenue and cost of procurement of the Company are mainly denominated in RMB, we maintain a RMB oriented debt structure, which not only matches our operational characteristics, but also effectively prevents liquidity risks and systematic exchange rate risks of the Company. As at December 31, 2019, the proportion of borrowings that were denominated in RMB amounted to approximately 96.9%, whilst the borrowings denominated in foreign currency amounted to approximately 3.1%. Borrowings denominated in foreign currency are primarily used to procure equipment and spare parts from overseas markets as well as related services.

In view of financing terms, the construction and operation of nuclear power projects have relatively long cycles, therefore our debts mainly comprise long-term debts. Meanwhile, to meet the requirements of the Company's liquidity management, we also intend to gradually repay the project debts with the revenue generated from our projects in the future through matching the decentralized and orderly repayment schedules with long-term cash flow from the Company's nuclear power projects. In 2019, the Company continued to place emphasis on the term structure of our debt, and controlled the liquidity risk facing the Company. As at December 31, 2019, the proportion of the Group's short-term debts accounted for approximately 17.0% of total debt, whilst long-term debts accounted for approximately 83.0%.

Debt balance analysis-by currency (%)



Debt balance analysis-by term (%)

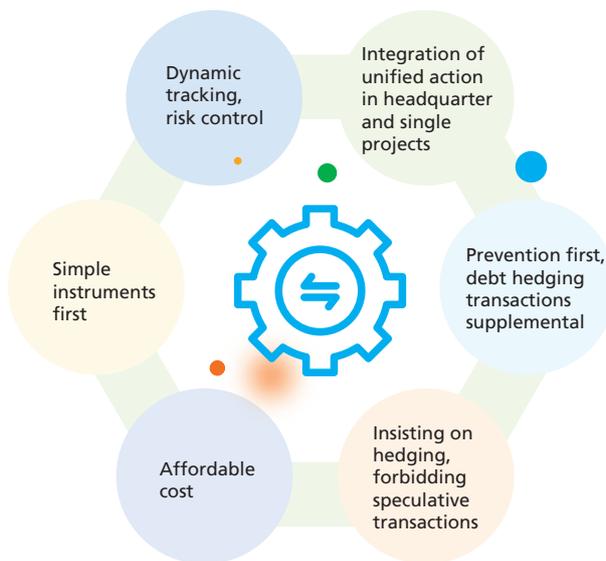


# Financial Capital

## Debt Risk Management

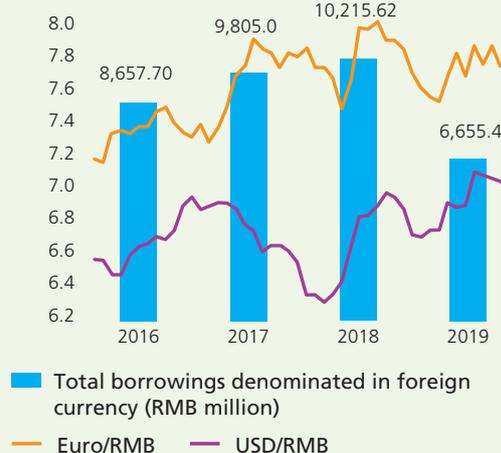
### Effective response to foreign exchange rate and interest rate risks

Responding to the procurement of equipment, spare parts and related services from overseas market, the Company has accumulated some foreign currency debts in the process of nuclear power project construction. Due to fluctuations in foreign exchange rates, the foreign currency debt may affect earnings and cash flow of the Company. In order to mitigate the impact, we uphold a prudent approach to carry out debt hedging and risk prevention arrangements under a well-established debt risk management system. Our objective is cost control instead of profit, while we adhere to the principle of hedging and prohibiting speculative transactions. All the hedging transactions shall be on the basis of factual debt cash flow or guaranteed payment of commercial contracts, while simple instruments shall be mainly applied. We regularly review the positions of derivatives, monitor and report various risks with timely adjustments in accordance with the expected changes in the market.



In recent years, we adopted measures such as forward transactions, debt swaps and early repayment to reduce exchange rate exposure of foreign currency debts gradually. Exposure of foreign currency debts as at the end of the Reporting Period was mainly Euro export credit of Taishan Nuclear. Meanwhile, we managed new foreign currency debt by payments for foreign commercial contracts through spot or forward purchase of foreign exchange in RMB, and effectively reduced the impact of significant exchange rate risk. Compared with the end of 2018, the total amount of borrowings denominated in foreign currency of the Group at the end of the Reporting Period decreased by RMB3,560.2 million. In 2020, the Company will continue to closely monitor the market and actively adopt measures to minimize the impact of foreign currency exchange rate fluctuations.

Total borrowings denominated in foreign currency and changes in RMB exchange rate





The debts of the Company were mainly long-term and medium-term floating rate debt. The floating rate debt of the Company denominated in Renminbi was mainly linked to the benchmark lending rate announced by the People’s Bank of China. In 2019, the benchmark lending rate announced by the People’s Bank of China remained unchanged. The financial cost of the Company’s debt financing remained stable. As affected by various domestic and foreign factors, market interest rate in the domestic market remained low, creating opportunities for the Company to optimize its debt structure and control financing cost. In order to cope with interest rate risk and control medium-term financing cost, the Company timely issued two tranches of medium-term notes amounting to a total of RMB3,000.0 million, mainly used for repayment for bank borrowings of subsidiaries and replenishment of liquidity. Interest rates of issuance were 3.50% and 3.55%, respectively, which were lower than comparable new external lending rates of subsidiaries, effectively controlling financing cost and reducing impact of interest rate fluctuation on the Company’s operations.

### Limited Recourse or Non-Recourse Financing Methods

To ensure the Company’s separation from financing risks, we usually arrange nuclear power project companies as the financing entities in respect of nuclear power project financing. In principle, we do not provide guarantees to the project companies. We strictly control certain guarantees, such as warranty, security and pledge, in the financing process, and do not permit our subsidiaries and associates to provide guarantees in any form to external entities or individuals without the approval of the competent authorities of the Company. Subsidiaries and associates are also not allowed to provide guarantees for each other.

Nuclear power project companies raise debt funds by limited recourse or non-recourse financing methods. They mainly repay the principal amount and interest with sales income or other income generated from such projects. Creditors have no recourse rights or limited recourse rights to project shareholders.

### Proper Financial Leverage

We attach high importance to our financial leverage and shall continue to undertake its optimization. On the one hand, we achieve good shareholder returns through the proper financial leverage, and on the other hand, we avoid excessive debt financing in the course of business expansion that may hurt our financial health. As at December 31, 2019, the Group’s asset-liability ratio was 65.1%, slightly lower than that of 2018, which was mainly because the Group’s shares were listed on the Shenzhen Stock Exchange in August 2019, which resulted in an increase of the total equity of the Group.



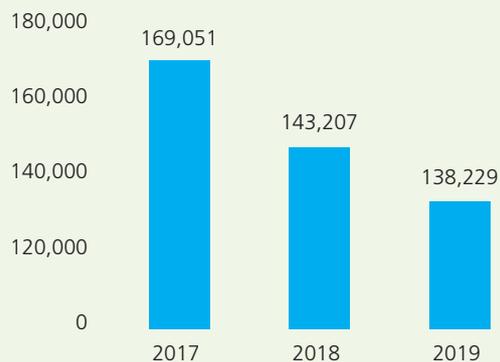
# Financial Capital

## Adequate Liquidity

To manage liquidity risks, we monitor and maintain our cash as well as the level of banking facilities to ensure that such amounts can provide sufficient cash support for our operation and avoiding too much idle funds.

As of December 31, 2019, we had limit of unutilized general banking line of credit of approximately RMB118,657.8 million and cash of RMB19,571.6 million, which can provide sufficient cash for the operations of the Company and mitigate the effects of fluctuations in cash flows.

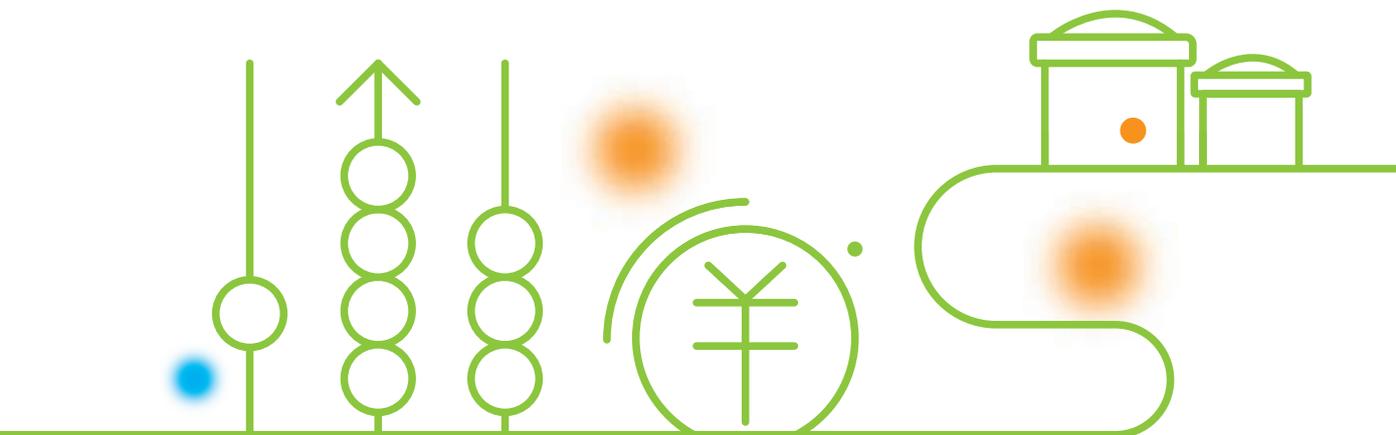
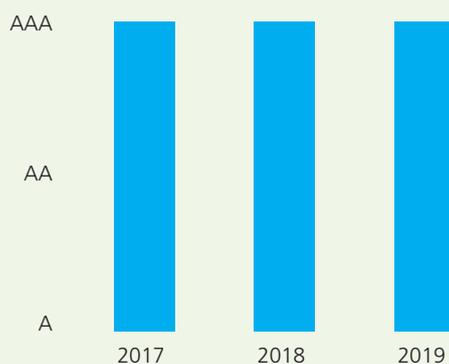
Available Funds and Financing Limit (RMB million)



## Maintaining a Good Credit Rating

Maintaining a good credit rating helps lower our cost of financing. In June 2019, China Chengxin International Credit Rating Co., Ltd. (中誠信國際信用評級有限責任公司) assessed the credit rating of the Company and maintained our AAA credit rating with stable outlook.

Credit Rating



# Environmental Capital

Our commitment to social responsibility is to continue to provide safe, reliable, clean and economical electricity for the society and to strive for a bluer sky and clearer water, which has also been the cornerstone for our sustainable development. The Company attaches great importance to the harmony between nuclear power operations and the natural environment, and always adheres to a highly responsible attitude to the environment and maintains the healthy, stable and sustainable development of the Company.

We hereby describe the policies and mechanisms of the Group with respect to the management of radioactive wastes and environmental monitoring. For other matters regarding the environmental management of the Group, please refer to 2019 ESG Report published by the Company.

## Radioactive Waste Management

NPPs generate gaseous, liquid and solid wastes while generating electric power. These wastes are collectively called the “Three Wastes” at NPPs, among which, some wastes are radioactive and require proper management and safe disposal to protect the public and the environment. There are strict and specific regulations and requirements in all countries in respect of the disposal of radioactive wastes from NPPs and the control of the discharge of them to the environment. According to the national standard, namely “Classification of Radioactive Waste” 《放射性廢物的分類》(GB9133-1995), radioactive wastes are divided into low-level radioactive waste, medium-level radioactive waste and high-level radioactive waste. High-level radioactive wastes from NPPs are mainly spent fuels which are used fuel assembly removed from the reactor. Such spent fuels must be reprocessed in accordance with the national unified planning. Radioactive waste management as described herein mainly refers to low to medium level radioactive waste management.

We have established a set of comprehensive radioactive waste management mechanisms which have been integrated into the whole operation process of NPPs, and control and treat radioactive wastes using international advanced technologies and standards to continuously improve our capability in respect of the treatment of the Three Wastes. Our guiding principles for nuclear waste management are “waste minimization” and “optimization of radiation protection”. We strive to minimize the amount of radioactive waste generated and keep on developing the technology for reducing the capacity of solid waste. We strictly comply with the laws, regulations and standards of the State in every aspect of our treatment of radioactive waste (including collection, purification and concentration, volume reduction and solidification, packaging, transportation, temporary storage on-site, centralized disposal, etc.). In terms of emission standards, we require ourselves to comply with the strictest standards. Our emissions are far lower than the levels allowed by the national emission standards. Please refer to the section “Business Performance and Analysis” of this Annual Report for details of radioactive waste of our NPPs in 2019.

# Environmental Capital

## Environmental Monitoring

All of our nuclear power bases have established strict environmental monitoring system and environment routing inspection record system according to the requirements of the national regulatory authority, so as to monitor and analyze the environmental media of air, land species and marine organisms within a radius of ten kilometers of our NPPs on an ongoing basis, and to assess the environmental standard within NPP and surrounding regions and reduce the impact of NPP operation on the surrounding environment.

In addition to self-monitoring of NPPs, national regulatory authorities and third-party external organizations will also monitor the environment of NPPs.

The national regulatory authority implements strict supervision requirements on radioactive emissions from NPPs, and requests “dual-track system” monitoring to be conducted on gaseous and liquid effluents as well as the external environment in the periphery of NPPs. Such monitoring shall be carried out by the operators of NPPs and the radiation environment monitoring agencies under environmental protection systems of the provinces in which NPPs are located, respectively.

According to the long-term tracking and monitoring by the external institutions such as the Hong Kong Observatory, the monitoring results of each of our NPPs in service since its operation show that environmental radioactivity in the surrounding area has not changed compared with the background data before the NPPs commenced commercial operations, and the biological population of land and sea in these regions has not changed either, so there was no adverse impact on the environment. According to the ongoing monitoring by the national regulatory authority, the air-absorbed dose rates of environment around NPPs in operation stay within the fluctuation range of local natural background levels.



Underwater World of Daya Bay Base Area

# Social and Relationship Capital

The construction and operation of NPPs have a very extensive effect. The understanding, trust and support from the society, the public, shareholders and other stakeholders are critical to the Company to ensure our sustainable development.

We herein briefly describe the policies and practices of the Group with respect to the society and the public. Our communication with shareholders and investors are set out in the section headed “Corporate Governance” of this Annual Report. Please refer to the 2019 ESG Report published by the Company regarding more information on the society and the public, the exchange between the Company and other cooperation partners as well as other matters.

## Proactive Disclosure of Information

Each of the nuclear power bases managed by us has established its public information platform on nuclear and radiation safety. The information made available to the public includes monthly operating data, such as capacity factor, radiation protection, industrial safety, Level 1 fire risk incidents, Three Wastes control and monitoring of the environment, and operational events. Any operational event occurring at a nuclear power generating unit in operation must be published on such public information platform within two working days from the date on which such event is defined. In 2019, the Company disclosed all the relevant information as required within the specified time.

Each of the nuclear power bases managed by us has established its own websites and social media platforms such as the official WeChat account for proactively delivering the operational information of various nuclear power bases. The Company arranges regular press conferences, interviews and site visits by invitation, theme activities and distribution of publications to provide NPPs’ related information to the main industry regulatory departments and the media, and takes public inquiries through hotlines, facsimile and e-mail. In 2019, the Company and our NPPs convened 10 press conferences.

## Transparent Public Communication

We adhere to transparent communication, and constantly explore the open and transparent communication mechanisms. We actively promote nuclear power knowledge in cities, schools and communities to help the public understand all aspects of nuclear power in order to enhance the public confidence in nuclear power.

**Participating in exhibitions** In 2019, we participated in 16 major exhibitions at home and abroad, including the 13th China International Exhibition on Nuclear Power Industry, the Great Achievement Showcase Celebrating the 70th Anniversary of the Founding of the People’s Republic of China (慶祝中華人民共和國成立70週年大型成就展) and the Smart Energy Transformation Asia 2019. At the 21st China International Hi-Tech Fair, we presented our HPR1000 3D collaborative design and management platform and “Hebao (核寶)”, the intelligent robot for promoting the knowledge of the nuclear power industry, for the first time, which attracted a large audience.

# Social and Relationship Capital

**Reaching the campus** By combining the promotion of the knowledge of nuclear power industry and science fiction, we launched a program called “Finding the Most ‘Sci-Fi’ Teenagers in China”, which attracted over 4,500 teenage participants from nearly 30 cities across the country and achieved nearly 200 million views on the topic.



Most “sci-fi” teenagers



Most “sci-fi” teenagers

**Public Open Day** In 2019, we launched the seventh session of the “8·7 Public Open Day” in seven venues, namely Beijing and Daya Bay, Taishan, Yangjiang, Ningde, Hongyanhe and Fangchenggang Nuclear Power Bases, simultaneously. The theme of this session was “Safety, Ecology, Responsibility, and Transparency”. At the main venue in Beijing, we released the “First Biodiversity Protection Report in the National Nuclear Power Industry” and presented awards to six of the most “sci-fi” teenagers in China. We also released the “first science fiction e-book collectively created by teenagers in China” and debuted “the 2nd generation Robot Nuclear Science Lecturer of CGN Power” which has the function of measuring radiation exposure index.



8·7 Public Open Day for 2019



Launch of new generation of Robot Nuclear Science Lecher

**Public day trips** In 2019, we organized 23 sessions of “Exploring Nuclear Power - CGN Public Day Trip”. Over a thousand public visitors entered and visited nuclear power plants as an individual through online booking and registration. This activity allowed more people to walk into nuclear power plants and learn about nuclear power.



“Beautiful Life, Journey with CGN” (“美好生活·核你同行”) public day trip, sharing the warm winter sunlight



“Unity with CGN to Build a Beautiful China” (“齐心核力美丽中国”) Ningde Nuclear public activity

## Win-win Community Development

We uphold the vision of “boosting the economy and benefiting the people there in which we conduct a construction project”. We actively promote community development and at the same time, we achieve our corporate development plan by building a harmonic relationship with the surroundings. We actively respond to the national policy of targeted poverty alleviation, using our own advantages to help designated counties and villages develop characteristic industries to improve the lives of local residents, aiming at helping the villagers alleviate poverty and set out on a road to prosperity.

### Targeted poverty alleviation

In 2019, the Company strengthened poverty alleviation in Lingyun County and Leye County of Guangxi Zhuang Autonomous Region, focused on poverty alleviation through education with Bailu Class and industries, further improved the “Bailu Class”, and continued to develop the Lingyun mulberry silkworm breeding projects and the Leye kiwi project. The incidence of poverty in Lingyun County and Leye County decreased to 1.6% and 1.18% from 6.21% and 8.17% at the end of 2018, respectively. At the end of 2019, Lingyun County had the conditions to lift poverty. Leye County is planned to lift poverty in 2020. For more information about the Company’s targeted poverty alleviation, please see our 2019 ESG report.



“Egret Class” (“白鹭班”) of Lanjin Primary School (宽金小学) in Lingyun County, Guangxi

### Dedicated to social welfare

We actively participate in social and charitable activities, assist vulnerable groups in the society, and continuously serve the community.

We encourage and support employees to systematize and regularize charitable activities. In 2019, we had more than 12,129 employees volunteer and over 27,000 people participating in public service activities for over 28,131 hours, in which 626 employees participating in free blood donations.





# Corporate Governance

- 80 Board of Directors, Supervisory Committee and Senior Management
- 87 Corporate Governance Report
- 119 Directors' Report
- 131 Audit and Risk Management Committee Report
- 132 Remuneration Committee Report
- 134 Nomination Committee Report
- 136 Nuclear Safety Committee Report
- 137 Supervisory Committee Report
- 141 Risk Management Report

# Board of Directors, Supervisory Committee and Senior Management

As at December 31, 2019, the biographies of our Directors, Supervisors and senior management are as follows:



● **Mr. Zhang Shanming**  
**Chairman and Non-executive Director**

Mr. Zhang Shanming (張善明), born in 1964, was appointed as our Chairman and non-executive Director from March 2014 to March 2020. He has a doctoral degree and is a senior engineer (researcher-level). Mr. Zhang is entitled to special allowance of the State Council. Mr. Zhang has more than 35 years of experience in the nuclear power industry. He served as the chairman of the board of directors of CGN Engineering from February 2006 to June 2008, as the chairman of the board of directors of CNPRI from May 2008 to June 2011, and as the chairman of the board of directors of DNMC from February 2009 to June 2011. He has been the president of CGNPC (formerly, China Guangdong Nuclear Power Holding Co., Ltd. (中國廣東核電集團有限公司)) from August 2010 to January 2020 and a director of CGNPC from March 2014 to February 2020.



● **Mr. Gao Ligang**  
**Executive Director and President**

Mr. Gao Ligang (高立剛), born in 1965, was appointed as an executive Director and the President in March 2014. He has a master's degree and is a senior engineer (researcher-level). Mr. Gao is entitled to special allowance of the State Council. Mr. Gao has more than 30 years of experience in the nuclear power industry. He served as the general manager of DNMC from February 2004 to January 2008. He worked successively as the chairman of the board of directors and the general manager of Yangjiang Nuclear from December 2007 to October 2013. He also served as the general manager of Guangdong Taishan Nuclear Co., Ltd. (now called Taishan Nuclear) from December 2007 to October 2011, and served as the chairman of the board of directors of Taishan Nuclear from December 2007 to February 2019. Mr. Gao also served as the senior vice president of CGNPC from April 2011 to March 2014 and has been the chairman of General Nuclear System Limited (通用核能系統有限公司) ("GNS") since June 2016.



● **Mr. Tan Jiansheng**  
**Non-executive Director**

Mr. Tan Jiansheng (譚建生), born in 1959, was appointed as a non-executive Director of the Company in May 2017. He has a master's degree and is a senior economist. Mr. Tan has over 35 years of experience in the financial and energy industries and has served as the senior vice president of CGNPC since September 2000. From March 2006 to October 2009, Mr. Tan served as chairman of Ningde Nuclear and from October 2006 to August 2009 as chairman of CGNPC Uranium Resources Co., Ltd. (中廣核鈾業發展有限公司) ("CGN Uranium"). From April 2007 to January 2011, Mr. Tan served as a General Counsel of CGNPC.



● **Mr. Shi Bing**  
Non-executive Director

Mr. Shi Bing (施兵), born in 1967, was appointed as a non-executive Director of the Company in March 2014. He has a master's degree and is a senior accountant as well as a certified public accountant. Mr. Shi has more than 20 years of experience in finance, accounting, auditing and management in large nuclear power enterprises. Since January 2008, Mr. Shi has successively served as the deputy chief financial officer while concurrently serving as the general manager of the finance department, senior vice president while concurrently serving as deputy chief financial officer, senior vice president while concurrently serving as chief financial officer, and senior vice president of CGNPC. Mr. Shi is currently the senior vice president of CGNPC.



● **Mr. Zhang Yong**  
Non-executive Director

Mr. Zhang Yong (張勇), born in 1968, was appointed as a non-executive Director of the Company in May 2017. He has a master's degree, and is a senior accountant, certified public accountant in the PRC and international registered internal auditor. Mr. Zhang has more than 20 years of experience in auditing and accounting. From June 2012 to January 2017, Mr. Zhang served as the chief accountant of China Nuclear Fuel Co., Ltd. (中國核燃料有限公司) and has been the chief accountant of China National Nuclear Power Co., Ltd. (中國核能電力股份有限公司), a nuclear power generation company listed on the Shanghai Stock Exchange (stock code: 601985) since January 2017. Mr. Zhang is currently a director of CNNC Financial Leasing Co., Ltd., CNNC Finance Co., Ltd. and Global Innovation Nuclear Energy Technology Co., Ltd., and the chairman of the board of directors of CNNC Kunhua Energy Development Co., Ltd.



● **Mr. Na Xizhi**  
Independent non-executive Director

Mr. Na Xizhi (那希志), born in 1953, was appointed as an independent non-executive Director of the Company in March 2014. He has a master's degree and is a senior engineer (professor-level). He is qualified to be an independent director of listed companies on the SZSE. Mr. Na has over 30 years of experience in conventional power management and operation. From March 2006 to April 2008, Mr. Na worked as the general manager at Huaneng Power International Inc., a company listed on the Hong Kong Stock Exchange (stock code: 902) and the Shanghai Stock Exchange (stock code: 600011), which was engaged in the development, construction and operation and management of power stations. He served as a director of Huaneng Power International, Inc. from May 2005 to May 2008, and served as the vice president at China Huaneng Group from September 2005 to April 2006 and from May 2008 to July 2013.

# Board of Directors, Supervisory Committee and Senior Management



● **Mr. Hu Yiguang**  
**Independent non-executive Director**

Mr. Hu Yiguang (胡裔光), born in 1971, was appointed as an independent non-executive Director of the Company in March 2014. He has a master's degree. He is qualified to be an independent director of listed companies on the Shenzhen Stock Exchange. Mr. Hu is a senior partner and managing partner of Lifang & Partners in Beijing, the PRC, and is well versed in laws relating to the real estate and construction industry, corporate law, financial law, as well as general civil and commercial litigation and arbitration. He worked as legal counsel for the former Ministry of Railways of the PRC, China Minsheng Banking Corp., Ltd., China Everbright Bank Co., Ltd. and other enterprises and government departments. Mr. Hu also serves as an external director of Sinosteel Corporation Ltd.



● **Mr. Francis Siu Wai Keung**  
**Independent non-executive Director**

Mr. Francis Siu Wai Keung (蕭偉強), born in 1954, was appointed as an independent non-executive Director in March 2014. Mr. Siu obtained a Bachelor of Arts degree with major in economics and accounting and financial management from the University of Sheffield in the United Kingdom in July 1979. He is qualified to be an independent director of listed companies on the SZSE. Mr. Siu is a senior fellow member of the Institute of Chartered Accountants in England and Wales and the Hong Kong Institute of Certified Public Accountants. Mr. Siu worked at KPMG for approximately 31 years. He has extensive experience in providing audit services for the PRC and overseas companies and has sound knowledge of advising on foreign direct investment in the PRC. Mr. Siu also serves as an independent non-executive director in four listed companies: CITIC Ltd. (stock code: 267), China Communications Services Corporation Ltd. (stock code: 0552), and China International Capital Corporation Limited (stock code: 3908), each of which is listed on the Hong Kong Stock Exchange; GuocoLand Limited (stock code: GUOL), which is listed on the Singapore Exchange. Mr. Siu also serves as an independent non-executive director of BHG Retail Trust Management Pte. Ltd. and Beijing Gao Hua Securities Co., Ltd.



● **Mr. Chen Sui**  
**Chairman of the supervisory committee of the Company the ("Supervisory Committee") and non-employee representative supervisor of the Company (the "Supervisor")**

Mr. Chen Sui (陳遂), born in 1964, was appointed as the chairman of the Supervisory Committee and a non-employee representative Supervisor of the Company in May 2017. Mr. Chen has a master's degree and is a senior engineer. Mr. Chen has over 30 years of experience in strategic planning, renewable energy development, construction, operation management and energy conservation management. Mr. Chen was the deputy general manager of CGN Energy Development Co., Ltd. from April 2006 to April 2007, the chairman and general manager of CGN Wind Energy Co., Ltd. from April 2007 to September 2010 and the chairman of CGN Energy Conservation Industry Development Co., Ltd. from September 2010 to February 2016. He has been the chairman of CGN Wind Energy Co., Ltd. since September 2010, and the chairman of CGN Solar Energy Development Co., Ltd. since March 2017. Mr. Chen served as the chairman of CGN Nuclear Technology Development Co., Ltd., a company listed on the Shenzhen Stock Exchange (stock code: 000881), from July 2018 to October 2018. Mr. Chen has been the Chairman of CGN New Energy Holdings Co., Ltd. (a company listed on the Hong Kong Stock Exchange, stock code: 1811) since January 2014. Mr. Chen has been assistant to president and employee director of CGNPC since January 2018.



● **Mr. Yang Lanhe**  
Non-employee representative Supervisor

Mr. Yang Lanhe (楊蘭和), born in 1952, was appointed as a non-employee representative Supervisor of the Company in June 2015. He has a master's degree and is a senior engineer. Mr. Yang is entitled to special allowance of the State Council. Mr. Yang has more than 30 years of experience in the nuclear power industry. He served as secretary to the Committee of Nuclear Power Qinshan Joint Venture Co., Ltd. under the Communist Party of China from April 2003 to November 2004. From November 2004 to February 2013, he successively served as general manager and secretary to the Party Committee of Nuclear Power Qinshan Joint Venture Co., Ltd. and Qinshan Nuclear Power Co., Ltd., general manager of Qinshan Nuclear Power Station No. 3 Co., Ltd. and deputy secretary to the Party Committee of the Qinshan Nuclear Power Base.



● **Mr. Chen Rongzhen**  
Non-employee representative Supervisor

Mr. Chen Rongzhen (陳榮真), born in 1954, was appointed as a non-employee representative Supervisor of the Company in June 2015. He has a bachelor's degree and is a senior engineer. Mr. Chen is entitled to special allowance of the State Council. Mr. Chen has over 35 years of experience in the power dispatching, transmission and distribution, and power marketing industries. Mr. Chen served as deputy general manager of Guangdong Guangdong Group Co., Ltd. from November 2003 to June 2005, served as deputy general manager of Guangdong Power Grid Corporation from June 2005 to November 2007, served as the director of the market transaction department of China Southern Power Grid Co., Ltd. (中國南方電網公司("CSG")) from November 2007 to December 2010, and served as the deputy chief economist of CSG from December 2010 to December 2014.



● **Ms. Zhu Hui**  
Employee representative Supervisor

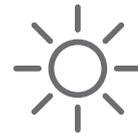
Ms. Zhu Hui (朱慧), born in 1971, was appointed as an employee representative Supervisor of the Company in March 2019. She has a master degree and is a senior accountant. Ms. Zhu has more than 20 years of experience in financial management. She served as the deputy director (presiding over the work) and director of the finance department of CNPRI from June 2007 to December 2009, as accounting management senior manager of the finance department of CGNPC from December 2009 to August 2011, as deputy director of financial sharing center (presiding over the work) of CGNPC from August 2011 to May 2014, as deputy director (presiding over the work) and director of financial sharing center of the Company from May 2014 to August 2018. She has been the director of the audit department of the Company since August 2018. She has been a supervisor of CGNPC Uranium Resources Co., Ltd. and a supervisor of CGN Capital Holdings Co., Ltd since October 2018.

# Board of Directors, Supervisory Committee and Senior Management



● **Mr. Wang Hongxin**  
Employee representative Supervisor

Mr. Wang Hongxin (王宏新), born in 1963, was appointed as an employee representative Supervisor of the Company in June 2015. He has a master's degree and is a librarian (associate researcher level) and an accountant. Mr. Wang also has a Chinese law practice qualification certificate, corporate legal counsel practice qualification certificate and corporate lawyer practice qualification certificate. Mr. Wang has more than 25 years of experience in the nuclear power industry. Mr. Wang served as a full-time director of the governance and business department of CGNPC from January 2011 to July 2011; served as a full-time director and assistant to general manager of the legal affairs department of CGNPC from July 2011 to May 2014; served as the deputy general manager of the legal affairs department of the Company from May 2014 to February 2016; served as the deputy director of the Supervisory Department of the Company (presiding over the work) from September 2015 to July 2017. He was also a director of CGN New Energy Holdings Co., Ltd., a company listed on the Hong Kong Stock Exchange (stock code: 1811), from July 2017 to June 2018. He has served as supervisor of Hongyanhe Nuclear since November 2018. From July 2017 to December 2018, he was the deputy general manager of the corporate legal affairs department of the Company (presiding over the work), and has served as general manager of the legal affairs department of the Company since December 2018.



# Senior Management



● **Mr. Gao Ligang**  
**Executive Director and President**

The biography of Mr. Gao Ligang is set out in Page 80 of this Annual Report.



● **Mr. Su Shengbing**  
**Vice President**

Mr. Su Shengbing (蘇聖兵), born in 1962, was appointed as a Vice President of the Company in March 2014. He has a master's degree and is a senior engineer (researcher-level). Mr. Su has more than 30 years of experience in the nuclear power industry. Mr. Su served as deputy general manager at Hongyanhe Nuclear from August 2006 to May 2010, as deputy director of the general office and director of the research center at CGNPC from May 2010 to June 2011, and as deputy general manager at GNIC from June 2011 to September 2012. Mr. Su served as vice mayor of Yuxi City, Yunnan Province from September 2010 to August 2012. Mr. Su was an executive director and the general manager of CGN Operations from September 2012 to June 2018. He served as the general manager of the nuclear power operation department of the Company from May 2014 to May 2016. He has also served as the chairman of the board of directors of DNMC and GNPJVC since January 2016 and served as the chairman of the board of directors of Taishan Nuclear since February 2019.



● **Mr. Yin Engang**  
**Chief Financial Officer**

Mr. Yin Engang (尹恩剛), born in 1968, was appointed as the chief financial officer of the Company in October 2017. He has a master's degree and is a senior accountant. Mr. Yin has over 20 years of experience in finance and auditing. From August 2006 to October 2007, he served as Chief Financial Officer of Hongyanhe Nuclear. From October 2007 to July 2008, he served as deputy head of the preparatory team of CGNPC Industry Investment Fund Management Co., Ltd., served as the chief financial officer of CGNPC Industry Investment Fund Management Co., Ltd. from July 2008 to March 2014, and served as the general manager of the finance department of CGNPC from March 2014 to October 2017. From March 2015 to January 2018, he served as a director of CGN New Energy Holdings Co., Ltd., a company listed on the Hong Kong Stock Exchange (stock code: 1811).

# Board of Directors, Supervisory Committee and Senior Management



● **Mr. Chen Yingjian**  
Vice President

Mr. Chen Yingjian (陳映堅), born in 1962, was appointed as a Vice President of the Company in May 2018. He has a master's degree and is a senior engineer (researcher-level). Mr. Chen has more than 30 years of experience in the nuclear power industry. Mr. Chen served as assistant to general manager of Yangjiang Nuclear from March 2004 to September 2005, as director of preparatory office of Ningde Nuclear from September 2005 to June 2006, as deputy general manager of Ningde Nuclear from June 2006 to January 2011, as deputy general manager of CGN Engineering from January 2011 to February 2016, as general manager of the nuclear power engineering department of the Company from February 2016 to May 2016. Mr. Chen has served as executive director and general manager of CGN Engineering since February 2016, as chairman of Worldwide Engineering CGNPC AREVA Nuclear Co., Ltd. since March 2016 and as chairman of China Nuclear Power Design Co., Ltd. (Shenzhen) since April 2016 and as Chairman of China Techenergy Co., Ltd. (北京廣利核系統工程有限公司) ("Techenergy") since September 2016.



● **Mr. Jiang Dajin**  
Vice President, Joint Company Secretary and Board Secretary

Mr. Jiang Dajin (蔣達進), born in 1962, has served as a Vice President of the Company since May 2018. He has also worked as the Board secretary of the Company since November 2018 and as a joint company secretary since December 2018. He has a bachelor's degree and is a senior engineer (researcher-level). Mr. Jiang has more than 35 years of experience in the nuclear power industry. He served as an assistant to general manager and a director of design institute of CGN Engineering from January 2009 to January 2012, as a director of Yangjiang Nuclear from December 2011 to July 2018 and as a general manager of Yangjiang Nuclear from January 2012 to July 2018.

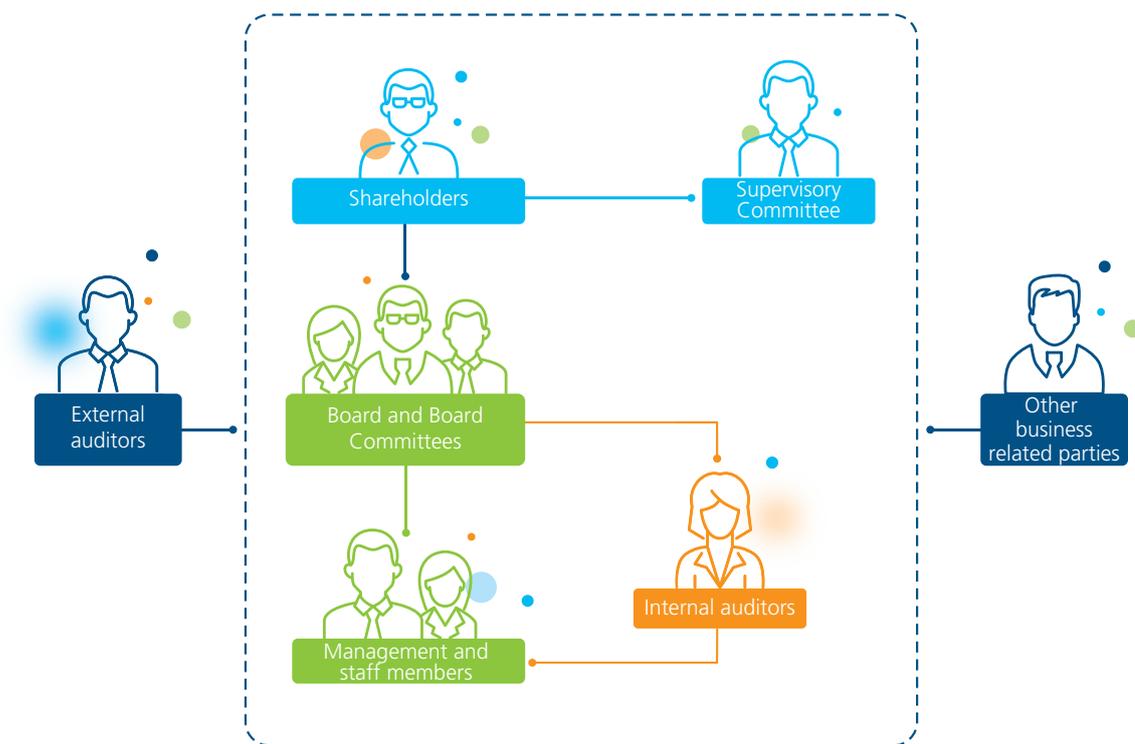


# Corporate Governance Report

## Corporate Governance framework

The corporate governance framework of CGN Power is designed to safeguard the interests of shareholders and it involves all the key participants in the corporate governance practices of the Company, reflecting the ways in which they relate to each other and their roles and functions in corporate governance.

Our internal governance structure comprises mainly our shareholders, the Board and the Board Committees, the Supervisory Committee, our internal auditors and our management and staff. External auditors conduct independent review and assessment on the governance of the Company to help us continuously optimize our internal governance. Meanwhile, the interactions between the Company and other business-related parties, including customers, business partners, social environment and regulators, also reflect the effectiveness of our corporate governance. We are therefore fully aware of our significant corporate and social responsibilities as a public company and we need to constantly follow the best corporate governance practices.



# Corporate Governance Report

## Brief Introduction to the Corporate Governance Code of CGN Power

The Company strives to maintain a high level of corporate governance to ensure the realization of the Company's strategy, to protect the interests of shareholders and to enhance enterprise value. The Company has complied with the Corporate Governance Code and Corporate Governance Report contained in Appendix 14 (the "Hong Kong Stock Exchange Code") to the Listing Rules. The Hong Kong Stock Exchange Code sets out the principles of good corporate governance and two levels of recommendations:

With respect to code provisions:



companies shall duly comply with, or give reasonable explanations for any deviations from the code provisions; and

With respect to recommended best practices:



for guidance only and companies are encouraged to comply with, or give explanations for any deviations from the recommended best practices.

In accordance with the Listing Rules and the Hong Kong Stock Exchange Code and based on the corporate governance framework of the Company, the Board has formulated the Corporate Governance Code of CGN Power Co., Ltd. (the "Corporate Governance Code of the Company") as the corporate governance guidelines of the Company to describe the systems, procedures and measures we adopted to ensure our corporate governance standards to meet the expectations of our shareholders and other stakeholders. The Code was reviewed and approved at the fifth meeting of the first session of the Board of Directors on November 18, 2014. Pursuant to the latest revision of the Hong Kong Stock Exchange Code and the Procedural Rules of Board of Directors of the Company, the Board approved the revision of the Corporate Governance Code of the Company on January 6, 2016 and November 14, 2018, respectively.

### The Corporate Governance Code of the Company



The Corporate Governance Code of the Company is in compliance with all code provisions of the Hong Kong Stock Exchange Code, and exceeds the recommended best practices in the Hong Kong Stock Exchange Code in the following aspects.

- Our procedures for convening general meetings (such as the notice period for convening a general meeting) are subject to the stricter requirements of the PRC laws and regulations.
- We have entered into service contracts with our Directors as well as our Supervisors, which define their respective rights, obligations and responsibilities, particularly the duties of independent non-executive Directors and executive Directors. The service contracts with our Directors and Supervisors do not contain any provisions under which the Company is not allowed to terminate such contracts within one year without compensation (except for statutory compensation).
- The Company shall disclose the compliance by its controlling shareholder of its undertakings under the non-competition deed in its annual reports.
- According to the authorization of the Board and the working rules of the special committees, the special committees of the Board consider and review the relevant issues and express their opinions and recommendations, and continuously enhance the decision-making support to the Board of Directors. In the meantime, the Board committees prepare their respective annual work reports and make relevant disclosure in the annual report, so as to further enhance the standardization and transparency of corporate governance.



## Corporate Governance Practices

The Company conducts a self-assessment on corporate governance every year with the aim of reviewing the implementation of the Corporate Governance Code and locating discrepancies, while summarizing the Company's good corporate practices.

In the self-assessment on corporate governance for 2019, the corporate governance practice of the Company was reviewed and summarized. As at the end of 2019, the Company has complied with all applicable code provisions of the Hong Kong Stock Exchange Code and the Corporate Governance Code.

Pursuant to the analysis on the rather developed as well as newly implemented measures in respect of corporate governance, we believe that the Company has exceeded the applicable provisions under the Hong Kong Stock Exchange Code in terms of the following aspects in 2019.

- 1 In 2019, the Company has complied with all code provisions set out in the Hong Kong Stock Exchange Code. Upon the listing of A shares of the Company, the Company has also complied with all recommended best practices.
- 2 Adhering to the working principle of "enhancing the scope of protection and striving for optimal protection conditions", the Company extended the insurance coverage for Directors to major associates and joint ventures, and the policy limit also increased. Upon listing of A shares in 2019, the responsibilities of directors of A shares are also covered.
- 3 In accordance with A share regulatory rules, the Company has advanced its Code for Securities Transactions by Directors and Specific Persons, which set up rules on basic principles for securities transaction, preliminary procedures and others. Interest Declaration Confirmation of Directors, Supervisors and Senior Management was executed at annual Board meeting and interim Board meeting, respectively.
- 4 The Consideration Process for the Resolutions of the Company was optimized to implement the information management on resolutions of the Company's headquarters and subsidiaries, which strengthened authorization management and control, and improved the transparency and efficiency of governance.
- 5 The management organized extraordinary meetings on the issues that the Board was concerned about for individual reporting, and responded to the concerns of the Directors.



# Corporate Governance Report

We will persist in the corporate governance practices established in the previous years and recognized by the Board or the general meeting, including:

1. The Board Secretary of the Company will sort out the actions from the meeting within one week after each Board meeting and report to the Board in respect of the implementation of such actions at the next Board meeting, and continue to follow up the actions which are still within the timeframe.
2. In order to facilitate the Directors' prompt access to relevant information on duty performance, the Company formulated the Handbook on Duty Performance of Directors of CGN Power, providing Directors with reference for the rules and guidelines of duty performance.
3. In order to help all Directors familiarize with and get hold of the Company's business and operation, the latest business report is given on the regular Board meeting of the Company.
4. The Company formulated the Standards for Preparation and Review of Board Resolutions to regulate the Board resolutions and facilitate the decision making of the Board.
5. The expenses incurred by Directors for seeking independent professional advisers have been included in the annual budget of the Company.
6. The Board Office of the Company prepares the plans for annual general meeting of the Company (the "AGM") and meetings of the Board and its special committees, and report to the Board, so as to enable the Directors to make reasonable time arrangement and attend the relevant meetings of the Board and AGM in person as much as possible.

In 2019, thanks to sound practices and continuous improvement in corporate governance of the Company, the Company was awarded the Best Corporate Governance Awards 2019 from the Hong Kong Institute of Certified Public Accountants, demonstrating that the corporate governance work of the Company was well-recognized by the capital market. The Company will continue to consolidate and improve its corporate governance, keep on tracking changes in relevant regulatory requirements, actively seek opinions and advice from investors, and optimize the relevant corporate governance related systems, so as to provide a strong guarantee for the long-term sustainable development of the Company.

## Overview of Regulatory Documents on Governance and Key Rules and Regulations

We attach great importance to the effective implementation and practicability of the regulatory documents on governance and provided guidance on the governance practices of the Company. In order to further improve the quality of the Board resolutions, ensure the compliance of the procedure of consideration of the Board resolutions and provide high quality resolution for the efficient consideration and decision-making of the Board, we formulated the Standards for Preparation and Review of Board Resolutions.

We also formulated the Handbook on Duty Performance of Directors to provide further guidelines and assistance for the performance of Director's duties with diligence. Pursuant to the latest revision of the Hong Kong Stock Exchange Code, we also made revision to the Corporate Governance Code of the Company and arranged for the formulation of Director Nomination Policy of CGN Power Co., Ltd.

As at the end of 2019, our regulatory documents on governance and key rules and regulations mainly consist of:

- Articles of Association of CGN Power Co., Ltd.\* (the "Articles of Association")
- Procedural Rules of General Meeting of CGN Power Co., Ltd.\* (the "Procedural Rules of General Meeting")
- Procedural Rules of the Board of Directors of CGN Power Co., Ltd.\* (the "Procedural Rules of Board of Directors")
- Procedural Rules of the Supervisory Committee of CGN Power Co., Ltd. (the "Procedural Rules of Supervisory Committee")
- Provisions on the Corporate Governance Authorization of CGN Power Co., Ltd. (the "Provisions on the Corporate Governance Authorization")
- Terms of Reference for the Audit and Risk Management Committee under the Board of Directors of CGN Power Co., Ltd.\*
- Terms of Reference for the Remuneration Committee under the Board of Directors of CGN Power Co., Ltd.\*
- Terms of Reference for the Nomination Committee under the Board of Directors of CGN Power Co., Ltd.\*
- Terms of Reference for the Nuclear Safety Committee under the Board of Directors of CGN Power Co., Ltd.\*
- Board Diversity Policy of CGN Power Co., Ltd.\*
- Management Rules on Information Disclosure of CGN Power Co., Ltd.
- Management Measures on Inside Information and Insiders of CGN Power Co., Ltd.



# Corporate Governance Report

- Management Rules on Investor Relations of CGN Power Co., Ltd.
- Management Rules on Related Party Transactions of CGN Power Co., Ltd.
- Management Rules on Comprehensive Risk Management of CGN Power Co., Ltd.
- Management Rules on Internal Auditing of CGN Power Co., Ltd.
- Internal Control Manual of CGN Power Co., Ltd. (First Edition)
- Director Nomination Policy of CGN Power Co., Ltd.\*
- Corporate Governance Code of CGN Power Co., Ltd.\*
- Shareholder Communication Policy of CGN Power Co., Ltd.\*
- Terms of Reference for Independent Directors of CGN Power Co., Ltd.
- Terms of Reference for Secretary of the Board of Directors of CGN Power Co., Ltd.
- Management Measures on External Guarantees of CGN Power Co., Ltd.
- Management Rules on Investments of CGN Power Co., Ltd.
- Code for Securities Transactions by Directors and Specific Persons of CGN Power Co., Ltd.\*
- Management Rules on Fundraising Proceeds of CGN Power Co., Ltd.

\* Disclosed at the website of the Hong Kong Stock Exchange or the website of the SZSE or the website of the Company.



## Major amendments to the Articles of Association

On August 26, 2019, A shares of the Company were issued and listed on the SZSE, and the Articles of Association came into effective after being approved at the 2018 first extraordinary general meeting held on 25 April, 2018.

## Compliance with Domestic Regulatory Requirements

The Corporate Governance Code of the Company and the corporate governance practice of the Company were in compliance with the PRC laws and regulations, the relevant regulatory requirements of the CSRC and the Hong Kong Stock Exchange. The Company will update them on a continuous basis to remain consistent with laws and regulations. As of the end of 2019, none of the Company, the Directors, Supervisors or senior management was subject to any administrative punishment, notice of criticism or blame.

## Relationship with Controlling Shareholder

### Independence from Controlling Shareholder

The Company has an independent and complete business system and is able to operate independently. We are independent from our controlling shareholder in respect of our business, employees, assets, organizations and finance, etc.

Among nine directors of the Company (of which Zhong Huiling, a non-executive Director, resigned from the position as a non-executive Director of the Company on 12 December, 2019), three non-executive directors hold positions in CGNPC (among which, Zhang Shanming, a non-executive Director, ceased to hold the position in CGN on 21 January, 2020, who resigned from the positions as the Chairman of the Board and non-executive Director of the Company on 3 March, 2020). Gao Ligang, the executive Director and President, has been the chairman of GNS (a subsidiary of CGNPC) since June 2016. Yin Engang, the Chief Financial Officer, was a director of CGN New Energy Holdings Co., Ltd. from March 2015 to January 2018. Vice President Chen Yingjian serves as chairman of Techenergy since September 2016. None of the other members of the senior management of the Company holds positions in CGNPC.

While maintaining our independent and complete business system and independent operating ability, we will continue to regulate our connected transactions and reduce potential horizontal competition to maximize shareholders' interests. If the Company enters into connected transactions with GNS, our Director Gao Ligang will abstain from voting.

## Horizontal competition with Controlling Shareholder

We entered into a Custodian Management Framework Agreement with CGNPC on April 28, 2014, pursuant to which the Group will provide certain custodian services and will represent CGNPC in exercising certain management rights or powers over the custodian target companies.

As at December 31, 2019, the target companies under custody included: Xianning Nuclear Power Co., Ltd. (咸寧核電有限公司), Hubei Nuclear Power Co., Ltd. (湖北核電有限公司), CGN Huizhou Nuclear Power Co., Ltd. (中廣核惠州核電有限公司) (“Huizhou Nuclear”), CGN Cangnan Nuclear Power Co., Ltd. (中廣核蒼南核電有限公司) and Techenergy.

In order to limit potential competition between CGNPC and its subsidiaries (our Company excluded, and CGNPC’s associates included for purposes of the connected transactions) (“CGN Group”) and the Group, we and CGNPC have entered into a non-competition deed, pursuant to which CGNPC has given certain non-competition undertakings to the Company (for itself and for the benefits of other members of the Group), to the effect that it would not, and it would procure that its associates and connected persons (other than any members of the Group) do not and would not, directly or indirectly, whether on its own account or in conjunction with or on behalf of any person, firm or company among other things, carry on, participate, be interested or engaged in or acquire or hold (in each case whether as a shareholder, director, partner, agent, employee or otherwise be involved, whether for profit, reward or otherwise), any restricted business (other than the disclosed retained business of CGN Group in the Prospectus) during the agreed restricted period. Only the independent non-executive Directors may participate in deciding whether or not to accept any new business opportunity. In addition, in order to avoid potential competition between CGN Group and the Group for certain nuclear power projects retained by the former, we have obtained the right to acquire and the pre-emptive right regarding the retained business to better protect the interests of the Group.

In the progress of A Share Offering of the Company, CGNPC further made an undertaking to avoid horizontal competition, including, but not limited to, to procure, at its best efforts, investees of CGNPC not to, whether at present or in the future, engage or participate in any business or activity that has or might cause direct or indirect competition with principal operations of the Company and its controlling subsidiaries, to treat the Group as the sole platform for final integration of nuclear power generation business of CGNPC, as well as to transfer the domestic retained nuclear power business of CGNPC to the Company upon the fulfillment of specific conditions.

Pursuant to the non-competition deed, in 2019, three independent non-executive Directors of the Company have decided in writing that the Company will not participate in the investment by CGNPC in the nuclear power construction project located in Romania.

The independent non-executive Directors will closely monitor the performance of CGNPC under the non-competition deed and the undertaking to avoid horizontal competition, and the management of the Company will report to the Board on the relevant matters as and when appropriate on an ongoing basis. CGNPC confirmed that no breach of non-competition deed and undertaking to avoid horizontal competition has been found during the reporting period.



# Corporate Governance Report

## Shareholders

### Shareholders' Rights

Shareholders' rights are based on certain laws and regulations, such as the Company Law of the People's Republic of China, the Hong Kong Companies Ordinance and the Listing Rules. Detailed descriptions on major rights of the shareholders are set out in the Corporate Governance Code of the Company, which mainly include:



receiving dividends and other kinds of profit distribution in proportion to their respective shareholding;



requesting, convening, hosting, attending or appointing proxies to attend and voting at general meetings in accordance with laws;



supervising the Company's operating activities and making suggestions or inquiries;



transferring, gifting or pledging their shares in accordance with laws, administrative regulations and the Articles of Association; and



requesting for the relevant information of the Company in accordance with the laws, administrative regulations and the Articles of Association.

To protect shareholders' interests and rights, the Company will submit separate resolutions in respect of all matters (including the election of a specific Director or Supervisor) at general meetings of the Company.

All resolutions tendered at the general meetings will be subject to voting by way of poll in accordance with the Listing Rules. The poll results will be published timely on the websites of the Company, the Hong Stock Exchange and the Shenzhen Stock Exchange after the general meetings.

### Convening Extraordinary General Meetings and Submission of Proposals

According to the Articles of Association, shareholders who individually or jointly hold 10% or more of the voting shares of the Company may request for the convening of an extraordinary general meeting (the "EGM"). The relevant request may be proposed in writing to the Board requesting the Board to convene an EGM to deal with the matters specified in the request. In the event that the Board agrees to convene an EGM or class meeting, the notice of convening an EGM or class meeting shall be issued within five days from the passing of the relevant resolution of the Board. Any amendment to the proposal made in the notice requires approval of the shareholders concerned.



According to the Articles of Association, shareholders who individually or jointly hold more than 3% of the shares of the Company may submit a proposal to the Board in writing ten days before the date of the general meeting. The Board shall notify other shareholders within two days of receiving the proposal and include it for consideration at the general meeting. The written proposal shall be addressed to the Board at the Company's headquarters in the PRC.

Further details about the procedures for shareholders to convene and put forward proposals at any general meeting are available on the Company's website.

## Enquiries to the Board

Shareholders who intend to put forward their enquiries about the Company to the Board could email their enquiries to the email address: IR@cgnpc.com.cn.

## Shareholdings

### Total number of registered shareholders

Unit: accounts

	As of December 31, 2018	As of December 31, 2019
Total number of registered shareholders	3,820	488,366
Registered shareholders of H shares	3,817	3,721
Holders of A shares	0	484,645

## Shareholder structure

Nature of shares	Shareholders	Number of shares held (shares)	Approximate percentage of the Company's total issued shares (%)
A shares	CGNPC	29,176,641,375	57.78%
	Guangdong Hengjian Investment Holdings Co., Ltd. ("Hengjian Investment")	3,428,512,500	6.79%
	China National Nuclear Corporation	1,679,971,125	3.32%
	Other holders of A shares	5,049,861,100	10.00%
H shares	CLP Nuclear Power Company Limited	142,434,000	0.28%
	National Council for Social Security Fund ("NSSF")	1,014,875,000	2.01%
	Shareholders of other issued and sold H shares	10,006,316,000	19.82%

Our current public float meets the requirements.

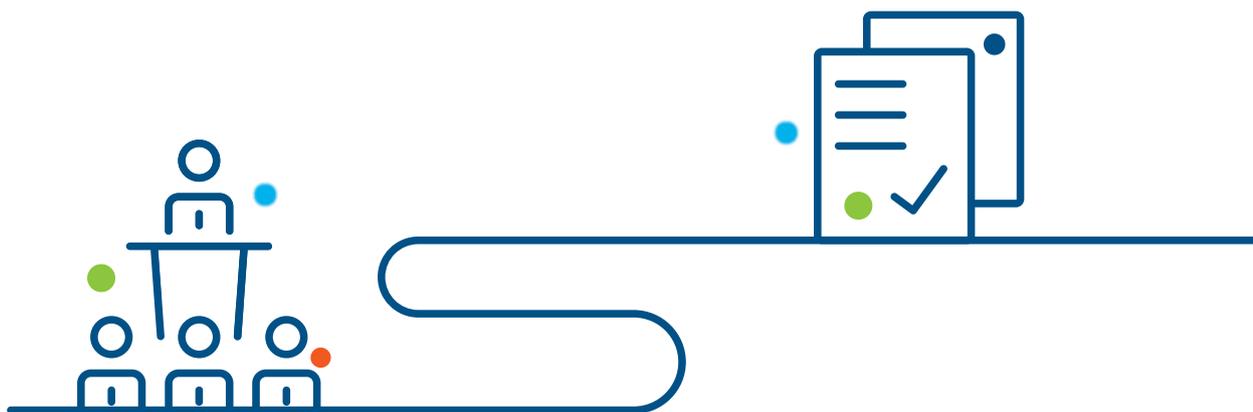
# Corporate Governance Report

## General Meetings

Pursuant to the Articles of Association, general meetings are divided into AGM and EGM. General meetings shall be convened by the Board. AGM is held once every year and within six months from the end of the preceding accounting year.

In 2019, we held two general meetings, namely the 2019 first EGM/the first H/domestic shareholders' class meeting and the 2018 AGM.

2019 First EGM	Date	April 23, 2019
	Location	Hong Kong
	Attendance	Total number of shares with voting rights represented by the shareholders attending the EGM in person or by proxy was 38,093,125,686 shares, representing approximately 83.82% of the total number of shares.
	Resolutions considered and approved	Ordinary resolutions: The Report on the Use of Previously Raised Funds The profit distribution plan for the year ended December 31, 2018
		Special resolutions: The extension of validity period of the Plan for the A Share Offering The extension of the authorization to deal with specific matters relating to the A Share Offering granted to the Board by the general meeting



First H shareholders' class meeting	Date	April 23, 2019
	Location	Hong Kong
	Attendance	Total number of H shares with voting rights represented by the holders of H shares attending the H shareholders' class meeting in person or by proxy was 3,427,479,323 shares, representing approximately 30.7% of the total number of H shares.
	Resolutions considered and approved	Special resolutions: The extension of validity period of the Plan for the A Share Offering The extension of the authorization to deal with specific matters relating to the A Share Offering granted to the Board by the general meeting
First domestic shareholders' class meeting	Date	April 23, 2019
	Location	Hong Kong
	Attendance	Total number of domestic shares with voting rights represented by the holders of domestic shares attending the domestic shareholders' class meeting in person or by proxy was 34,285,125,000 shares, representing 100% of the total number of domestic shares.
	Resolutions considered and approved	Special resolutions: The extension of validity period of the Plan for the A Share Offering The extension of the authorization to deal with specific matters relating to the A Share Offering granted to the Board by the general meeting

# Corporate Governance Report

2018 AGM	Date	May 29, 2019
	Location	Hong Kong
	Attendance	Total number of shares with voting rights represented by the shareholders attending the AGM in person or by proxy was 37,739,731,281 shares, representing approximately 83.1% of the total number of shares.
	Resolutions considered and approved	<p>Ordinary resolutions:</p> <p>The report of the Board for the year ended December 31, 2018</p> <p>The report of the Supervisory Committee for the year ended December 31, 2018</p> <p>The annual report of the Company for the year 2018</p> <p>The audited financial statements for the year ended December 31, 2018</p> <p>The investment plan and capital expenditure budget for the year 2019</p> <p>The re-appointment of Deloitte Touche Tohmatsu Certified Public Accountants LLP as the domestic and overseas auditor of the Company for the year 2019 until the close of the next annual general meeting, and the authorization to the Board to determine its remuneration</p> <p>The remuneration of the Directors and Supervisors for the year 2019</p> <p>The 2020 Engineering Services Framework Agreement and the proposed annual caps contemplated thereunder</p> <p>The Report on the Use of Previously Raised Funds as of December 31, 2018</p> <p>The Report on the Use of Previously Raised Funds as of March 31, 2019</p> <p>Special resolutions:</p> <p>The domestic registration and issuance of RMB denominated bonds</p> <p>The grant of a general mandate to the Board to allot, issue and deal with additional H Shares during the relevant period</p>



2018 AGM

We are serious about the organization and convening of each general meeting. All Directors attend the general meetings to the best of their abilities and answer questions of the shareholders with the presence of witnessing lawyer(s). The external auditors of the Company also attended the AGM, and replied to questions about audit practices, preparation and contents of the auditors' report, accounting policies and independence of auditors. The 2019 AGM is expected to be held in May 2020.

Details of the major questions raised by the shareholders and the relevant replies at the general meetings are as follows:

**In 2018, the market power tariff of the Company was RMB0.34/unit in average. With the increasing electricity bidding in markets, will there be any significant impact on results of the Company?**

The volume of electricity traded in markets is determined based on different contracts and varies in different provinces and regions. In general, the share of electricity volume traded in markets has been increasing over the years. However, market power tariff continued to decline despite the increasing market share. Instead, the market price under certain bidding transaction has increased. There are annual contracts, as well as monthly bidding, or even daily bidding and spot transactions. Hence, this issue is relatively complicated. All in all, we are of the view that more electricity available in market might not lead to lower power tariff.



**We advise the Company to consider the possibility of increasing dividends and proportion of bonus issue in order to fulfill expectation of minority shareholders.**

The Company will carefully consider your advice. The Board and management of the Company attach great importance to safe and steady operation of nuclear power generating units in order to achieve steady growth in overall operation. Based on the dividend per share distributed in 2018, the Company will maintain moderate increase in dividend per share for 2019 and 2020. In long run, the Company will offer shareholders with steady dividend return with moderate increase.



# Corporate Governance Report

## Communication with Shareholders and Investors

Investor relations have always been regarded as highly important by the Company, the Board of Directors and our management. The Company has established the Investor Relations Management System of CGN Power Co., Ltd., the Information Disclosure Management System of CGN Power Co., Ltd. and other systems to regulate the activities of investor relations through these systems.

The Company continues to help our shareholders understand the Company in a timely and comprehensive manner through various communication channels. Meanwhile, we highly value the views and feedback of shareholders and investors. We earnestly consider the advice and comments of shareholders and investors on the Company's development strategy, operation and other aspects and provide feedback to the Board, the management and relevant departments of the Company through briefings, special reports and other means, in order to achieve the alignment between the Company's business development and shareholder value and to protect the interests of the shareholders, thereby achieving effective and smooth two-way communication.

## Communication Activities with Shareholders and Investors

Main channels of communication with shareholders and investors and the communication activities in 2019:

- **Regular report:** Annual report, interim report, quarterly report, quarterly operation briefings and ESG report of the Company are released from time to time.
- **General Meeting:** An EGM was held in Hong Kong on April 23, 2019; the 2018 AGM was held in Hong Kong on May 29, 2019.
- **Results announcement conference:** The 2018 annual results announcement conference was held in Hong Kong on March 13, 2019; the 2019 interim results announcement conference call was held on August 22, 2019.

- **Results roadshow:** The Company organized the 2018 annual results roadshow in March 2019 and the 2019 interim results roadshow in August 2019.
- **Reverse roadshow:** On-site inspections of the nuclear power bases were organized from time to time for shareholders, investors, analysts and other relevant persons, so that they can understand the operation and construction status of the NPPs. In July 2019, site inspection was arranged at Taishan Nuclear Power Base for shareholders, investors and analysts.
- Before the initial public offering of A shares, the Company carried out offline roadshows for the offering of A shares in various places in July and August 2019, respectively.
- **Research activities:** we arranged interviews between the management and the investors and analysts from time to time to listen to their opinions and suggestions and respond to their concerns.
- **Analyst teleconference:** The Company organizes quarterly operation status teleconferences from time to time, to provide quarterly updates on safety production and operation to capital market and answer their questions. The Company held quarterly operation teleconferences in January, April, July and October 2019 respectively.
- **Online communication:** In August 2019, an A-share IPO online roadshow was organized; in September 2019, the Company participated in an online group reception day for investors of Shenzhen listed companies.
- **Daily communication:** Timely response to the concerns of shareholders and investors on the IRM platform, investor hotline, and IR mailbox.
- **Company website (www.cgnp.com.cn):** An Investor Relations column has been established to publish information and materials relevant to investors.

# Board of Directors

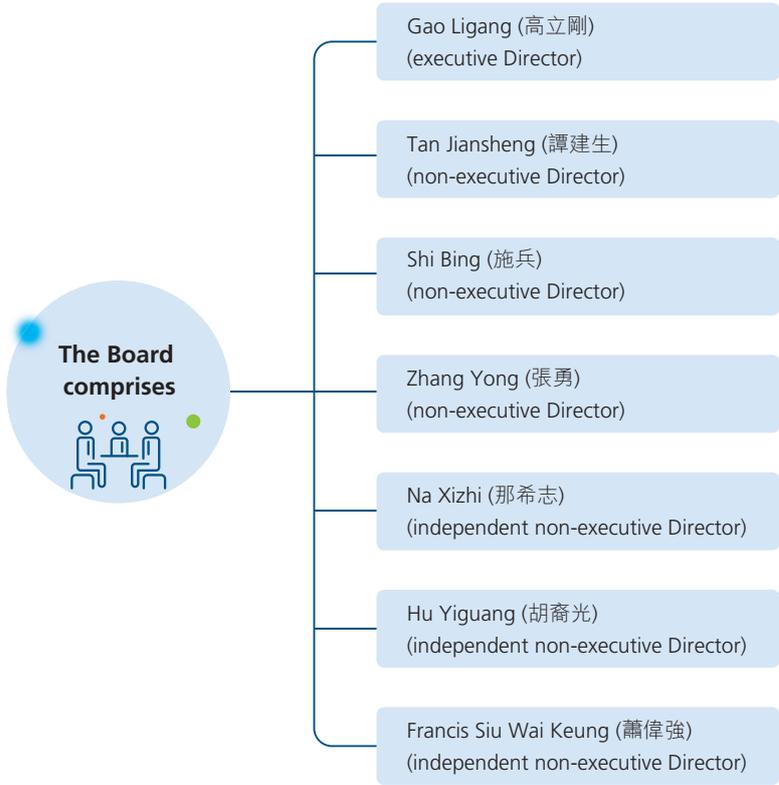
## Composition of the Board of Directors

We fully recognize the benefits of diversity in Board members to the development of the Company, and the Company is committed to establishing a board with members with a diverse background. The Board formulated the Board Diversity Policy and delegated the task of reviewing the policy regularly to the Nomination Committee.

Differentiation and diversity in many aspects, such as professional skills, industry experience, ages, qualifications and genders, are reflected in the composition of the members

of this session of the Board. The members of this session of the Board possess over 20 years of experiences in the electricity, legal and financial industries, respectively.

Pursuant to the Articles of Association, the Board of the Company comprises nine Directors. As of the date of this Annual Report, there are seven Directors in the Company at present. On December 12, 2019, Ms. Zhong Huiling resigned from her position as non-executive Director of the Company, and on 3 March, 2020, Mr. Zhang Shanming resigned from his positions as the Chairman of the Board and non-executive Director of the Company. Except for Mr. Gao Ligang, being a Director and the President of the Company, all the remaining Directors are non-executive Directors who are independent of our management, including three independent non-executive Directors. Each of the independent non-executive Directors has confirmed that he is independent of the Company, thereby contributing to critical review and monitoring of management process.



The Directors of the Company have extensive experience in management in the power industry, financial and accounting, legal, auditing and other fields, respectively. The Directors are fully aware of their responsibilities, rights and obligations, and will perform their duties with truthfulness, integrity and diligence.

# Corporate Governance Report

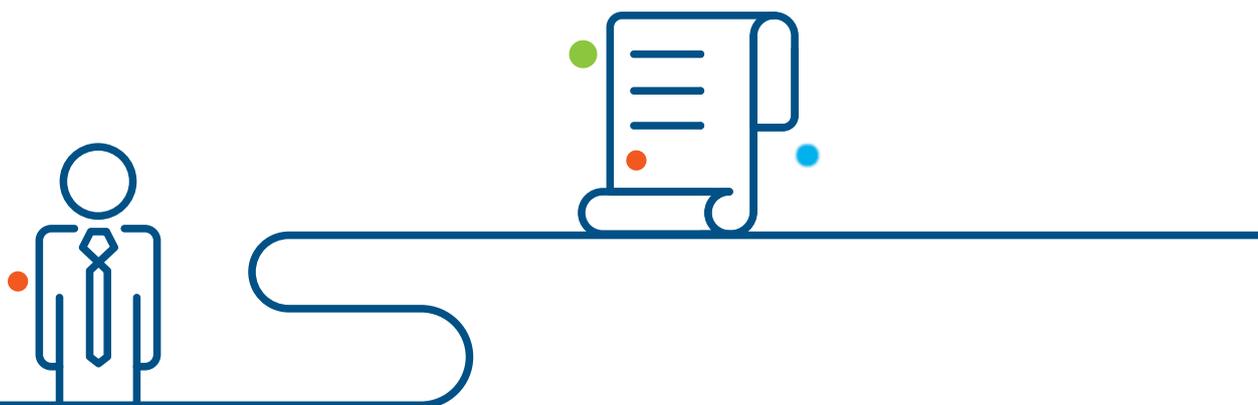
The Board has at all times complied with the requirements under Rules 3.10(1) and 3.10(2) of the Listing Rules for the year 2019 that at least three independent non-executive Directors have been appointed. Among them, at least one independent non-executive Director must have appropriate professional qualification or professional knowledge of accounting or professional knowledge related to financial management.

Each of the independent non-executive Directors has confirmed his independence according to Rule 3.13 of the Listing Rules, and all of them are considered as independent parties by the Company.

Since provisions of the Hong Kong Stock Exchange Code require Directors to disclose the number and nature of positions held in listed companies or entities and other material commitments, and their identities and duration of employment with the issuer, therefore, the Directors have agreed to disclose their relevant information timely to the Company.

Please refer to "Board of Directors, Supervisory Committee and Senior Management" set out on page 80 of this Annual Report for the biographical details of all Directors. Except for those disclosed in such section, no other information relating to the relationship between Directors and Supervisors and other Directors, Supervisors and senior management shall be disclosed according to the Hong Kong Stock Exchange Code.

The Board has set out the Procedural Rules of Board of Directors, which specify the terms of reference of the Board and procedures for the Board meetings, etc., and also set out special arrangements for voting on resolutions regarding major connected transactions and contracts. Directors shall not vote on any contract, transaction, arrangement or proposal in which he/she or any of his/her associates is materially interested, nor shall he/she be counted in the quorum. Where the number of the Directors who can vote on this matter is less than three, such issue shall be submitted to a general meeting for voting. In addition, the independent non-executive Directors shall provide independent opinions in accordance with laws and regulations and the Listing Rules. The Company will strictly review each resolution proposed at the Board meetings to find out whether there is any conflict of interest that requires Directors to abstain from voting and remind all Directors for confirmation before meetings. For instance, our Directors, including Zhang Shanming, Tan Jiansheng and Shi Bing, had abstained from voting at the Board meeting considering matters such as the 2020 Engineering Services Framework Agreement.



## Duties of the Board

As the operating decision-making body of the Company, the Board performs its duties in accordance with the provisions set out in the Articles of Association. The Board is responsible for overall leadership of the Group, supervision on the Group's strategic decisions and supervision on business and performance. The Board reports its work to the general meeting, implements the resolutions resolved at the general meeting and is accountable to the general meeting. The Board has delegated the powers and responsibilities for daily management and operation of the Group to the senior management of the Group.

All Directors of the Company are aware of their joint responsibility for the Company's operations, business and development, and perform their duties in accordance with the provisions of the service contract and the Corporate Governance Code of the Company. All Directors must ensure that they have complied with the applicable laws and regulations, and devote sufficient time and efforts to handle the affairs of the Company, to act with integrity, prudence and skills and to assume their respective responsibilities.

### The major responsibilities of the Board include:



- formulating strategic guideline of the Company;
- developing working targets of the management;
- evaluating the performance of the management;
- ensuring the Company implements a prudent and effective regulatory framework to evaluate and manage risks;
- performing the function of corporate governance for the Company or arranging for one or more committees to perform related duties; and
- authorizing the special committees to perform relevant detailed responsibilities in accordance with the requirements of the Procedural Rules of Board of Directors and the terms of reference of the special committees.

To facilitate the Directors' access to the support for duty performance, the Company, pursuant to the Listing Rules and the Articles of Association, compiled the Handbook on Duty Performance of Directors of CGN Power, providing Directors with reference for the rules and guidelines of duty performance.

### The main corporate governance duties of the Board include:



- developing and reviewing the policies and practices regarding the corporate governance of the Company;
- reviewing and monitoring the training and continuous professional development of the Directors and senior management;
- reviewing and monitoring the Company's policies and practices on compliance with legal and regulatory requirements;
- developing, reviewing and monitoring the rules regarding code of conduct applicable to employees and Directors; and
- reviewing the Company's compliance with the Corporate Governance Code of the Company and the Hong Kong Stock Exchange Code and the disclosure in the Corporate Governance Report.

## Delegation by the Board

The Board retains the power to decide on all material matters pertaining to the Company, including: approval and supervision on all policy matters, overall strategies and budgets, internal control and risk management system, material transactions (in particular those possibly involving a conflict of interests), financial information and other major financial and operation matters. The Directors may seek independent professional advice in performing their duties at the Company's expense and are encouraged to access and consult with the Company's senior management independently. The daily management, administration and operation of the Company are delegated to the senior management. The delegated functions and responsibilities will be reviewed by the Board on a regular basis.

# Corporate Governance Report

## Board Committees

The Board established four committees with specific terms of reference, namely the Audit and Risk Management Committee, the Remuneration Committee, the Nomination Committee and the Nuclear Safety Committee. The specialized committees shall conduct study on specific matters and furnish advice and recommendations thereon as a reference for the Board in its decision-making.

### Audit and Risk Management Committee

Please refer to the "Audit and Risk Management Committee Report" set out on page 131 of this Annual Report for details of the Audit and Risk Management Committee, including its composition and annual work summary.

#### The duties and responsibilities of the committee mainly include:



- To provide advice on the appointment, reappointment, removal and remuneration of the independent auditors, and to review the independence of the auditing agency appointed by the issuer and to give opinions on its independence;
- To review and monitor the independence and objectivity of the independent auditors as well as the effectiveness of the audit process in accordance with the applicable standards, and discuss the nature and scope of the audit with the independent auditors before the audit commences;
- To formulate and implement policies on engaging external auditors to provide non-audit services according to work needs. The Committee shall report to the Board identifying and making recommendations on any matters where action or improvement is needed;
- To review the quarterly, half-year and annual financial statements to be proposed to the Board, monitoring the completeness, accuracy and fairness of the financial statements of the Company. In reviewing these financial statements, the Committee shall focus on: any changes in accounting policies and estimates, areas involving critical judgment, significant adjustments required by the independent auditors after auditing the accounts, the going concern assumptions and any qualifications, compliance with accounting standards and the relevant legal requirements;
- To consider any significant or unusual items which are reflected or required to be reflected in the reports and accounts of the Company, and give due consideration to any matters raised by the Company's accounting and finance department, compliance department or auditors;
- To discuss the review of the half-year accounts and audit of the Company by the independent auditors;
- To review the independent auditors' explanatory notes of inspection or management proposal letter (including any material queries raised by the independent auditors regarding the accounting records, financial accounts or monitoring system), and the responses to queries from the management officers of the Company;
- To communicate with the Board, senior management officers and the independent auditors in respect of the Company's financial reports on a regular basis, at least two meetings must be convened each year with the independent auditors of the Company;
- To be responsible for any important communication between internal auditors and external auditors;
- To review the Company's financial policies, internal audit system, internal control system and risk management system and its implementation;
- The Audit and Risk Management Committee shall establish the relevant procedures for dealing with the following issues: receiving, retaining and dealing with complaints coming to the knowledge of the Company in relation to accounting, internal control, risk management or auditing matters; receiving or handling complaints or whistle blowing from the Company's employees on accounting or auditing matters and keeping their confidentiality;
- To actively understand the work dynamics of the internal audit department, timely coordinate major internal control deficiencies found and to report to the Board of Directors; and
- To fulfill other duties and responsibilities delegated by the securities regulatory authorities in the jurisdiction where the Company is listed.

## Remuneration Committee

Please refer to the “Remuneration Committee Report” set out on page 132 of this Annual Report for details of the Remuneration Committee, including its composition, annual work summary, remuneration policy and remuneration of Directors, Supervisors and senior management in 2019.

### The duties and responsibilities of the committee mainly include:



- To study the remuneration policy, structure and procedures for formulating remuneration policies (including benefits in kind, pensions and compensation payments) for Directors, Supervisors and senior management officers and make recommendations to the Board. The procedures for formulating remuneration policies shall be formal and transparent;
- To consider and make recommendation on the appraisals of Directors, Supervisors and senior management officers;
- To review and approve performance-based remuneration proposals for management officers with reference to corporate goals and objectives set by the Board;
- To organize the Company's performance evaluation of management personnel except supervisors;
- To approve with authority delegated by the Board or make recommendations to the Board on the remuneration and benefits of the individual executive Directors and senior management;
- To make recommendations to the Board on the remuneration of non-executive Directors;
- To consider the level of salaries paid by comparable companies, time commitment and responsibilities of the relevant individual, and other positions held by such individual in the Company when determining the remuneration and benefits for Directors, Supervisors and senior management;
- To supervise the implementation of the remuneration system for Directors, Supervisors and senior management officers of the Company;
- To review and approve the compensation arrangements for Directors, Supervisors and senior management officers for any loss or termination of office and dismissal due to misconduct; and
- To ensure that none of the Directors or any of his/her associates will be involved in deciding on his/her own remuneration.

## Nomination Committee

Please refer to the “Nomination Committee Report” set out on page 134 of this Annual Report for details of the Nomination Committee, including its composition and responsibilities and annual work summary.

### The duties and responsibilities of the committee mainly include:



- To review the structure, size and composition (including the skills, knowledge, experience and diversity of perspectives) of the Board on a regular basis annually, and make recommendations on any proposed changes to the Board to complement the Company's strategies;
- To recommend individuals suitable to become directors and President; select and nominate such individuals for directorships or make recommendations thereon;
- To assess the independence of the independent non-executive Directors;
- To make recommendations to the Board for the appointment or re-appointment of Directors and succession planning for Directors;
- To review the Board diversity policy and any measurable objectives for implementing such Board diversity policy as may be adopted by the Board from time to time, and to review the progress of achieving relevant objectives; and
- To fulfill such other duties and responsibilities delegated by the Board.

# Corporate Governance Report

## Nuclear Safety Committee

Please refer to the “Nuclear Safety Committee Report” set out on page 136 of this Annual Report for details of the Nuclear Safety Committee, including its composition and annual work summary.

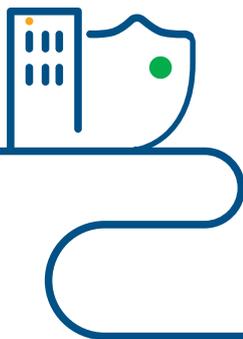
The duties and responsibilities of the committee mainly include:



- To listen to presentation of the Company relating to status of nuclear safety;
- To listen to independent nuclear safety assessment reports by third-party organizations obtained by the Company;
- To implement necessary nuclear safety oversight, offer guidance and conduct research activities in accordance with the needs;
- To report observations and recommendations to the Board;
- To give appropriate response to the shareholders’ meeting on nuclear safety issues of concern;
- To fulfill such other duties and responsibilities delegated by the Board; and
- To fulfill other duties and responsibilities delegated by the regulatory authorities in the jurisdiction where the Company is listed.

## Particulars of Board Meetings

The Company has adopted the practice of holding Board meetings on a regular basis. The Company set out the next year’s meeting schedule one year in advance. The notice of regular Board meeting and the meeting documents signed and issued by the management or chairmen of specialized Board Committees will be sent to all Directors at least 14 days prior to the date of convening the meeting to enable them to attend the meeting, have sufficient time to familiarize themselves with the meeting content and decision-making matters and include relevant matters for consideration in the agenda.



During the reporting period, we convened a total of ten Board meetings (five regular Board meetings and five extraordinary Board meetings). The convening and voting procedures of such meetings were all in compliance with the requirements under the Articles of Association and the Procedural Rules of Board of Directors. Details of the meetings are as follows:

No	Meeting	Date	Mode
1	Ninth meeting of the second session of the Board of Directors	January 8, 2019	Physical
2	Eighth extraordinary meeting of the second session of the Board of Directors	February 26, 2019	By teleconference
3	Tenth meeting of the second session of the Board of Directors	March 12, 2019	Physical
4	Ninth extraordinary meeting of the second session of the Board of Directors	April 22, 2019	By teleconference
5	Eleventh meeting of the second session of the Board of Directors	May 28, 2019	Physical
6	Twelfth meeting of the second session of the Board of Directors	August 21, 2019	Physical
7	Tenth extraordinary meeting of the second session of the Board of Directors	September 12, 2019	By teleconference
8	Eleventh extraordinary meeting of the second session of the Board of Directors	September 24, 2019	By teleconference
9	Thirteenth meeting of the second session of the Board of Directors	October 30, 2019	Physical
10	Twelfth extraordinary meeting of the second session of the Board of Directors	December 30, 2019	By teleconference

All resolutions proposed at above meetings were approved. Save for the resolutions passed at above general meetings, major resolutions considered and approved by the Board during this reporting period also include:

- 2019 Operational Plan
- 2019 Comprehensive Risk Management Report
- 2019 Internal Audit Plan
- Amendment to the Accounting System of the Company
- Resolution on approving the use of temporary idle funds from the proceeds from the A shares offering to purchase principal-guaranteed wealth management products
- Resolution on approving the qualification of Mr. Wang Wei as the candidate of non-executive Director of the second session of the Board of CGN Power Co., Ltd.

# Corporate Governance Report

## Attendance of Directors at the Board Meetings, Board Committee Meetings and General Meetings

The table below shows details of attendance of Directors at the Board meetings, Board Committee meetings and general meetings during this reporting period.

Name	Position	Attendance/Frequency of Meetings					General Meeting
		Board Meeting	Audit and Risk Management Committee meeting	Remuneration Committee meeting	Nomination Committee meeting	Nuclear Safety Committee meeting	
Zhang Shanming <sup>note</sup>	Chairman of the Board and Non-executive Director	6/10	-	-	1/3	0/2	0/2
	Member of the Nomination Committee						
	Chairman of the Nuclear Safety Committee						
Gao Ligang	Executive Director and President	10/10	-	-	-	2/2	2/2
	Member of the Nuclear Safety Committee						
Tan Jiansheng	Non-executive Director	7/10	-	-	-	-	0/2
Shi Bing	Non-executive Director	10/10	-	-	-	-	2/2
Zhong Huiling <sup>note</sup>	Non-executive Director	8/9	-	3/3	-	1/2	2/2
	Member of the Remuneration Committee						
	Member of the Nuclear Safety Committee						
Zhang Yong	Non-executive Director	10/10	6/7	-	-	2/2	2/2
	Member of the Audit and Risk Management Committee						
	Member of the Nuclear Safety Committee						
Na Xizhi	Independent non-executive Director	10/10	7/7	-	3/3	2/2	2/2
	Chairman of the Nomination Committee						
	Member of the Audit and Risk Management Committee						
	Member of the Nuclear Safety Committee						
Hu Yiguang	Independent non-executive Director	10/10	-	3/3	3/3	-	2/2
	Chairman of the Remuneration Committee						
	Member of the Nomination Committee						
Francis Siu Wai Keung	Independent non-executive Director	9/10	7/7	3/3	-	-	1/2
	Chairman of the Audit and Risk Management Committee						
	Member of the Remuneration Committee						

Note: Mr. Zhang Shanming resigned from his positions as the Chairman of the Board and non-executive Director of the Company due to changes in his work commitments, which became effective on 3 March, 2020; Ms. Zhong Huiling resigned from her position as non-executive Director of the Board of the Company due to changes in her work commitments, which became effective on December 12, 2019.

Certain Directors failed to attend relevant meetings due to other business engagements and delegated in writing to the proxies to vote on relevant matters on their behalf.

## Training for Directors

As stipulated by the Listing Rules, a director shall be aware of his duties. All newly appointed Directors have been provided with necessary induction training and information to ensure that they will have proper understanding of the operation and business of the Company and their responsibilities under the relevant laws, regulations and rules.

In order to provide better assistance to the Directors for performing their duties, we have actively made arrangements for the Directors to participate in trainings in relation to, among others, the business and corporate governance aspects of a listed company. Furthermore, we will provide the Directors with written information on applicable policies and regulations issued by the regulators from time to time.

In addition, the management of the Company will monthly provide the Directors with a monthly management report, which sets out the particulars such as achievements of our operating indicators, safety and environmental management, production and operation, project construction, financial information and industry information.

We will arrange the Directors to carry out on-site inspections from time to time every year to enable them to have a better understanding of our operation and business, and invite and encourage them to furnish reasonable suggestions and advice to the Company based on their respective areas of expertise.

The Directors of the Company have received the following trainings in relation to the roles, functions and duties of directors of listed companies for the year ended December 31, 2019.

Director	Type of training		
	Reading Materials	Specific Training	On-site Inspections
Zhang Shanming <sup>Note</sup>	√	√	
Gao Ligang	√	√	
Tan Jiansheng	√	√	
Shi Bing	√	√	
Zhong Huiling <sup>Note</sup>	√	√	√
Zhang Yong	√	√	√
Na Xizhi	√	√	√
Hu Yiguang	√	√	√
Francis Siu Wai Keung	√	√	√

Note: Mr. Zhang Shanming resigned from his positions as the Chairman of the Board and non-executive Director of the Company due to changes in his work commitments, which became effective on 3 March, 2020; Ms. Zhong Huiling resigned from her position as non-executive Director of the Board of the Company due to changes in her work commitments, which became effective on December 12, 2019.

# Corporate Governance Report

## Reading Materials: Company Management Monthly Report



- a total of 12 issues

## Specific Trainings:



**On May 28, 2019**



- the "Introduction to the Differences Between Transactions Conducted under A Share and H Share Listing Rules" given by the legal advisors of the Company.

**On October 30, 2019**



- the "General Training for Directors, Supervisors and Senior Management" given by the legal advisors of the Company and the "Training on Continuous Supervision of Listed Companies" given by the sponsors of the Company.

**On December 24, 2019**



- Mr. Gao Ligang, executive Director, attended the "Tenth Training Course for Chairman and General Manager of Listed Companies in 2019" organized by China Association for Public Companies.

**On December 3 to 5, 2019**



- the independent Directors, namely Na Xizhi, Hu Yiguang and Francis Siu Wai Keung, attended the 109th session of the Independent Director Training Course for Listed Companies organized by the Shenzhen Stock Exchange.

## On-site Inspections:



**From April 23 to 24, 2019**



- the Directors and Supervisors conducted on-site inspection at CGN Huizhou Nuclear Power Co., Ltd. (中廣核惠州核電有限公司).

**On May 27, 2019**



- the Directors and Supervisors conducted on-site inspection at Suzhou Nuclear Power Research Institute (蘇州熱工研究院有限公司).

**From June 21 to 22, 2019**



- the Directors and Supervisors conducted on-site inspection at Beijing Branch of China Nuclear Power Technology Research Institute Co., Ltd. (中廣核研究院有限公司北京分院) and China Techenergy Co., Ltd. (北京廣利核系統工程有限公司).

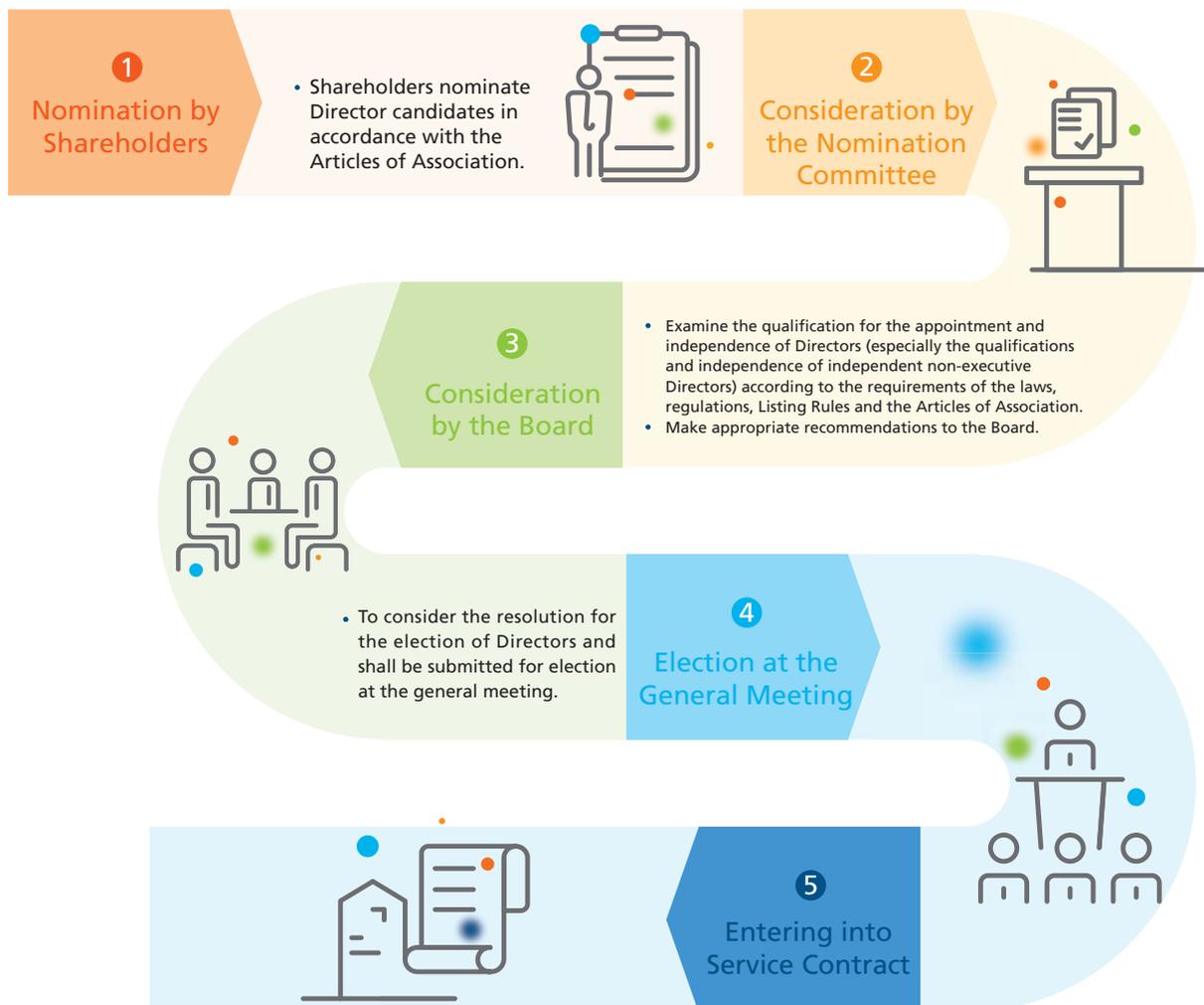
**From October 28 to 29, 2019**



- the Directors and Supervisors conducted on-site inspection at Taishan Nuclear Power Joint Venture Co., Ltd. (台山核電合營有限公司).

## Appointment and Re-election of Directors

According to the Articles of Association, the Directors shall be elected at the general meeting and each term of office shall be three years, Directors must retire by rotation at least once every three years and may be re-elected for continuous appointment. The Company formulated the procedures for selection, appointment and re-election of Directors, and specified the working process and duties in appointment and re-election of Directors.



## Directors' Undertakings

Directors have confirmed that they have devoted sufficient time and attention to the affairs of the Company during the year. All Directors have also disclosed to the Company the number and nature of their positions held in public companies or entities listed in the PRC, Hong Kong and overseas and other significant commitments, and provide the names of the public companies and entities and the time involved in working for the relevant positions.

Each of the Directors has signed the Declaration for Dealing in the Company's Securities by Directors, Supervisors and Senior Management (《董事、監事和高級管理人員買賣本公司證券聲明書》), undertaking to comply with the relevant confidentiality provisions and the securities dealing requirements, and has undertaken to obtain the

prior written approval from the Chairman of the Board or the designated Directors before dealing in the Company's securities and report and disclose the same to the Hong Kong Stock Exchange and the SZSE. All Directors have signed the confirmation for disclosure of interests by Directors, Supervisors and Senior Management on both Board meetings for annual and interim results. Directors shall notify the Company in writing of any changes in their personal information on a timely basis in order for the Company to timely report the same to the Hong Kong Stock Exchange, the SZSE and the Hong Kong Companies Registry within the prescribed period.

The Board office of the Company will regularly remind Directors to provide to the company secretary on a timely basis the information required to be disclosed in connection with matters needing disclosure by individuals under the Listing Rules.

# Corporate Governance Report

## Directors' Interest

As recorded in the register required to be kept pursuant to Section 352 of Part XV of the Hong Kong Securities and Futures Ordinance, none of the Directors held any shares of the Company or any of the Company's associated corporations as of December 31, 2019.

## Model Code for Securities Transactions

The Company has formulated and adopted the Code for Securities Transactions by Directors and Specific Persons, the provisions of which are not less stringent than the Model Code in Appendix 10 to the Listing Rules. After making specific enquiries by the Company, the Directors, Supervisors and senior management of the Company have all confirmed that they have complied with the above two codes for the year 2019.

## Roles of Chairman and President

According to the requirements of provision A.2.1 of the Hong Kong Stock Exchange Code, the roles of chairman and chief executive should be separated and should not be performed by the same individual. In 2019, Mr. Zhang Shanming and Mr. Gao Ligang are the Chairman and the President, respectively. The Articles of Association have expressly specified the functions and powers of the Chairman and the President. The main functions and powers of the Chairman include presiding over the general meetings, convening and presiding over meetings of the Board and reviewing the implementation status of passed Board resolutions. The main functions and powers of the President include being in charge of the Company's production, operation and management.

Pursuant to the Articles of Association, the President shall coordinate the implementation of the passed Board resolutions and report his/her work to the Board; the Chairman shall prepare the Directors' Report on behalf of the Board and submit the same to the Company's AGM for consideration.

## Directors' Financial Reporting Responsibilities in respect of Financial Statements

The Directors acknowledge their responsibilities for preparing the financial statements of the Company for the year ended December 31, 2019 which give a true and fair view of the affairs of the Company and the Group and of the Group's results and cash flows.

The management has provided the necessary explanations and information to the Board enabling the Board to make an informed assessment on the Company's financial statements submitted to the Board for approval.

The statement made by the auditors of the Company on their reporting responsibilities in respect of the Company's financial statements is contained in "Audit Report" of this Annual Report on page 150.

## Supervisory Committee

Please refer to the "Supervisory Committee Report" as set out in this Annual Report on page 137 for details of the Supervisory Committee, including its composition, duties and responsibilities and the annual work summary for the year.

## Company Secretary

The Board appointed Jiang Dajin, the Vice President of the Company, as a joint company secretary. Mr. Jiang Dajin is qualified to be a secretary to the board of listed companies on the Shenzhen Stock Exchange, and he is also the Board secretary of the Company. Pursuant to the requirements under the Listing Rules, the Board have also engaged Lee Kwok Fai Kenneth at TMF Hong Kong Limited as a joint company secretary to provide assistance to Mr. Jiang Dajin in conducting his work. The joint company secretaries also play essential roles in supporting the Chairman, Board and Board committees by ensuring on time and precise information flow, so the Board policies, procedures and decisions are followed. The joint company secretaries have the right to advise on the corporate governance matters and assist Directors to familiarize themselves with the affairs of the Company and acquire professional development.

According to Rule 3.29 of the Listing Rules, the joint company secretaries of the Company, Jiang Dajin and Lee Kwok Fai Kenneth, had taken not less than 15 hours of relevant professional training during the financial year ended December 31, 2019.

## Management and Staff

The responsibility of the management and staff of the Company is the successful implementation of strategy and direction determined by the Board, and they must observe national and local laws and regulations, and safeguard the interest of shareholders.

The delegation of specific authorities by the Board to the management is stated in the Provisions on the Corporate Governance Authorization (《治理授權規定》), and any amendment to the corporate governance authorization of the Company requires approval of the Board. The authorization delegated to the management and staff below the level of President have been stated in the provisions on the management authorization, and any amendment to the management authorization of the Company requires approval of the President.

The Staff Manual (《員工手冊》), which is prepared by the Company as an appendix to the employment contract, has the same effect as that of the employment contract. All staff who have signed employment contracts with the Company shall sign for receipt of the Staff Manual and make a statement that they have received, been aware of and will comply with all provisions set out in the Staff Manual. All management and staff are subject to the specific obligations as set out in the Staff Manual in respect of the work time, disciplines, workplace code, confidentiality and non-competition restriction, conflict of interests, value and code of conduct. All management and staff receive training on the Staff Manual on regular basis in order to ensure their understanding of the Staff Manual.

In 2019, we optimized and adjusted our disciplinary departments, and strengthened the deployment of disciplinary staff. We improved our handling procedures on non-compliance and disciplinary matters. By adopting different measures, we strengthened promotion of honest practices among the staff through various methods, which were well received by the staff. In 2019, we found 21 breaches of discipline and regulations, all of which were handled in strict accordance with relevant system and procedures. The disciplinary actions carried out included warnings, demerits, demotions (reduction in rank), dismissals, etc. Such cases concerning non-compliance with discipline and regulations did not have significant impact on our financial statements and the overall operation. The actions taken in respect of the non-compliance with discipline and regulations provided effective reminders on honest practices and facilitated the improvement of management of the Company. The Company has established effective whistleblower channels to report any malpractices or irregularity in any matters related to the Company.

The principles and details of the remuneration of senior management officers are set out in the “Remuneration Committee Report” on page 132 of this Annual Report.

The Company has attached great importance to the continuous professional development of management and staff. The details of its talent cultivation are set out in the “Human Capital” on page 55 of this Annual Report.

# Corporate Governance Report

## Internal Auditors

The Company has established an internal audit department, which plays a major role in monitoring the internal governance of the Company. The Group has 85 auditing staff with professional qualifications (such as senior auditors, internal auditors with international certifications, PRC certified public accountants and members of the Association of Chartered Certified Accountants in UK).

Duties of the audit department include:



Unrestricted access to review all aspects of the activities and internal controls of the Company;



Specific audits on the business, procedures, expenditures and internal controls of all functional departments, business units, subsidiaries and major affiliated companies of the Company on a regular basis; and



Specific reviews or audits of areas of concern identified by management or the Audit and Risk Management Committee.

The manager of the audit department is engaged by the Board of the Company, reports directly to the Audit and Risk Management Committee and the President, and his audit opinions will be reflected directly to the Board through the Chairman of the Audit and Risk Management Committee.

In 2019, the audit department of the Company conducted specific audits on key areas of management such as internal control, outage, scientific research and environmental protection of the Company as well as areas of concern identified by the management, and issued reports to senior management officers.

## External Auditors

Deloitte has audited the consolidated financial statements for the year 2019 prepared by the Company in accordance with the CASBE and IFRS. The auditing expenses for the Group for 2019 were about RMB9.42 million and the auditor of the Company does not provide non-auditing services.

After the conclusion of the 2019 AGM, the Company will no longer appoint Deloitte as the external auditor of the Company. With regard to the termination of re-appointment, Deloitte has confirmed that there are no matters in relation to the proposed change of the external auditor which should be brought to the attention of the shareholders of the Company. The Board and the audit and risk management committee of the Company have confirmed that there are no disagreements between the Company and Deloitte over the proposed change of the external auditor. For details, please refer to the announcement of the Company dated 25 March, 2020.

KPMG Huazhen LLP was proposed to be appointed by the Company as the external auditor of the Company for 2020 to undertake audit and interim review work for 2020 and internal control audit work for 2020. Its term of appointment will last until the conclusion of the 2020 AGM (subject to approval at the 2019 general meeting).

## Other Stakeholders

Other stakeholders of the Company include customers, partners, social environment and regulators, details of which are set out in the 2019 ESG Report of the Company.

## Internal Control

### Risk Management



The Company has established a comprehensive risk management system with the principle of “Unified Leadership, Hierarchical Management”, including risk management strategy, organizational function system of risk management and risk management information system. The Company identifies the risks and adopts qualitative and quantitative approaches to analyze and categorize the risks identified based on the possibility of occurrence and seriousness of impact of risks. Based on the result of risk analysis and the risk tolerance, the Company considers relevant risks and benefits and determines the focus points and major risks that require control, based on which it formulates risk control strategies. Please refer to the “Risk Management Report” for details of risk management.

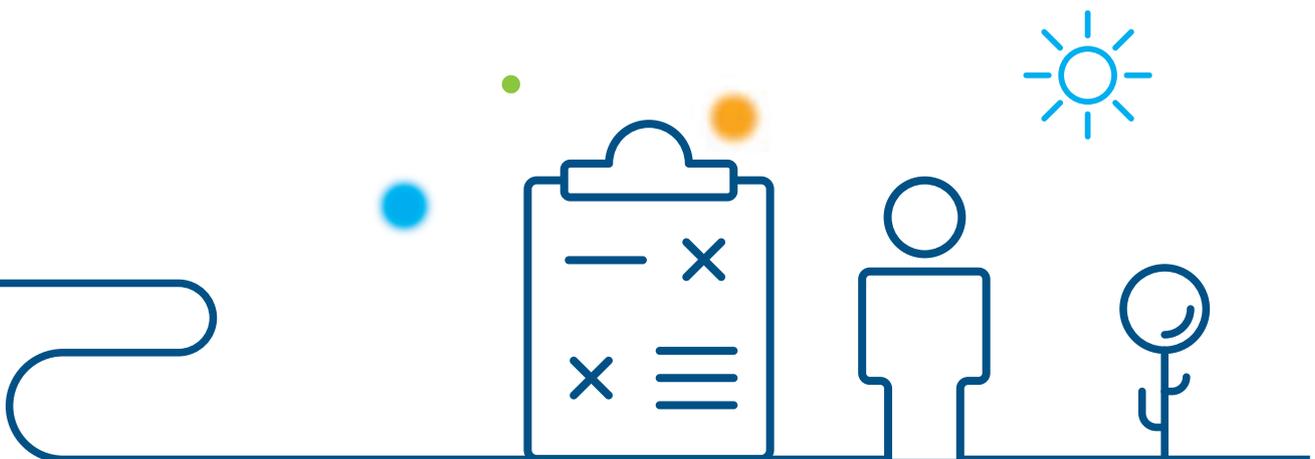
### Structure of the internal control system



Based on the principle of “unified theory and methods, multi-layer establishment and divided responsibilities”, the “Basic Standards of Internal Control for Enterprises” (《企業內部控制基本規範》) and its guidelines and taking into account of the business characteristics of the Company, the Company established the standards for internal control construction and management, and formed a collaborative system of internal control within the Company.



The Board of the Company is the decision maker for internal control and is responsible for the establishment and effective implementation of sound and effective internal control. The Supervisory Committee is the supervision body for internal control, and is responsible for supervising the Board in establishment and implementation of internal control. The management is the executive body in charge of internal control and is responsible for organizing and being in charge of the daily operation of internal control.



# Corporate Governance Report

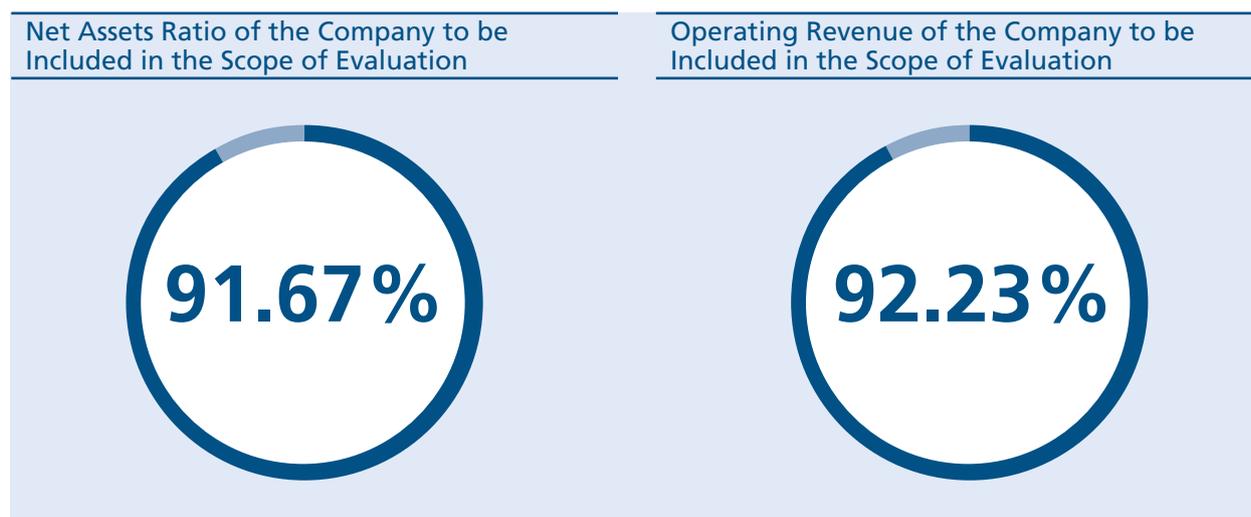
The Company formulated and the Board of the Company approved the Internal Control Manual of CGN Power Co., Ltd. (2017, First Edition). The manual standardizes the relevant management systems and procedures of various businesses and functions of the Company, breaks down and specifies the internal control responsibilities, reasonably guarantees legal and compliant operation and management and ensures the authenticity of financial reports.

Key Elements of Internal Control	Initiatives
 <p><b>Internal Environment</b></p>	<p>The corporate governance structure specifies the management authority at various levels</p> <p>Internal organizations and posts clearly define the allocation of responsibilities and powers</p> <p>The internal supervision system</p> <p>Corporate strategies</p> <p>Integrity and moral values and corporate culture</p> <p>Competency of staff</p>
 <p><b>Risk Assessment</b></p>	<p>Timely identifying and systematically analyzing risks associated with the realization of internal control objectives in the process of operation activities and reasonably determines strategies in response to risks</p>
 <p><b>Control Activities</b></p>	<p>Taking corresponding control measures and formulating internal rules, systems and procedures based on the risk assessment results to ensure the implementation of control measures</p> <p>Covering major business areas such as funding activities, procurement, sales, engineering projects management, guarantee, research and development, business outsourcing, asset management and financial reporting</p> <p>Formulating control measures from the perspectives of, among others, separation of incompatible duties, authority approval, accounting system control, property protection, budgets, operation analyses and evaluation</p>
 <p><b>Information and communication</b></p>	<p>Collecting and transmitting information related to internal control in a timely and accurate manner to ensure that the information is effectively transmitted within the Company, and between the companies and external parties.</p>
 <p><b>Internal Supervision</b></p>	<p>Regularly evaluating the implementation of systems and procedures</p> <p>Independent internal monitoring and auditing activities</p> <p>Self-assessment of internal control system on a regular basis</p>

## Internal control evaluation

According to the relevant provisions of the Corporate Governance Code, we have prepared the Internal Control Assessment Proposal for 2019 of the Company (the “**Internal Control Assessment Proposal**”), which clearly provides the evaluation covers the full 2019 financial year, and determines the major units, businesses and matters to be included in the scope of evaluation as well as high-risk areas based on the risk-oriented principle. The Internal Control Assessment Proposal was approved by the Audit and Risk Management Committee of the Board in August 2019.

The Board shall be responsible for the internal control system of the Group, and has completed the review on the effectiveness of the operation of internal control system of the Group in 2019. In accordance with the approved Internal Control Assessment Proposal, entities included in the scope of the current internal control evaluation mainly comprised the Company and 13 major subsidiaries, which covered all business segments and major business areas of the Company; as of December 31, 2019, the aggregate net assets and operating revenue of the aforesaid companies represented approximately 91.67% and 92.23% of the net assets and operating revenue of the Group, respectively. None of those subsidiaries which were not included in this evaluation had business or matters which would materially affect the Company’s operation and management. Each of those entities which are included in the relevant evaluation shall, based on its own business characteristics and key points of management, follow the principles of comprehensiveness and importance to incorporate key business areas and major business processes into the scope of evaluation. Overall, high-risk areas that need to be focused on mainly include, among others, quality and environmental management, procurement business, and fund activities. The aforesaid businesses and matters included in the scope of evaluation together with high-risk areas cover the major aspects of the Company’s operational management and there is no material omission.



Based on the determination of material defects in the internal control on the Company’s financial reporting, as of the benchmark date (December 31, 2019) of the internal control evaluation report, there were no material defects in the internal controls on the financial reporting of the Company, and the Board considers that the Company has maintained effective internal control on financial reporting in all material aspects in compliance with the requirements of the Regulated System of Internal Control for Enterprises (企業內部控制規範體系) and the relevant provisions.

Based on the determination of material defects in the internal control on the Company’s non-financial reporting, as of the benchmark date (December 31, 2019) of the internal control evaluation report, the Company was not aware of any material defect in the internal control on non-financial reporting. From the benchmark date of the internal control evaluation report up to the issue date of the internal control evaluation report, there were no factors which would affect the evaluation conclusion of effectiveness of internal controls.

# Corporate Governance Report

## Monitoring inside information

The measures for the management and control of inside information by the Company



The Company has expressly stated in the Staff Manual that unauthorized use of confidential or inside information is strictly prohibited.



The Company has regulated the channels of disseminating information.



The information disclosure management system and its ancillary procedures have been formulated in order to regulate the management requirements and handling procedures of inside information.



The relevant trainings on information disclosure have been provided to the Company's management and staff of the subsidiaries and major affiliated companies on a sustained basis.

In 2019, we carried out trainings on information disclosure through various ways such as face-to-face training, video communication and internet examinations and learning, adding for this year sessions on the latest requirements in both H-share and A-share markets and relevant practices of the Company to ensure compliance with relevant requirements on information disclosure in respect of H shares and A shares, covering almost 90% of the staff. In addition, we regularly prepared typical punishment cases in the places where the shares of the Company are listed for the training sessions, enhancing staff's comprehension on regulatory requirements. In 2019, we also conducted random inspection on the implementation of relevant systems and procedures information disclosure and found no violation of the procedure.

## Conclusion

The Company is committed to improving its corporate governance. We believe that good corporate governance lays a solid foundation for the continuous development of the Company, and is critical to creating value for our shareholders. The Company will further reinforce the good practices in corporate governance, continuously monitor the changes in relevant regulatory requirements, actively receive the opinions and recommendations from the investors and constantly optimize the corporate governance system, thereby providing powerful support to the long-term and sustainable development of the Company.

# Directors' Report

## Operations

Major operations: We build, operate and manage NPPs, sell electricity generated by these stations, and organize and develop the design and R&D of NPPs.

## Financial Statements

For the Group's financial statements for the financial year ended December 31, 2019, please refer to page 153 to 283.

## Five-Year Financial Highlights

The summary of operating results and financial information of the Group in the previous five financial years are set out in the "Financial Highlights" of this Annual Report on page 3. This summary does not form part of the audited consolidated financial statements.

## Earnings and Dividends

The details about the earnings of the Group for the year are set out in the "Consolidated Income Statement" on page 157.

Details of dividend payments and policy are set out in the "Shareholder Value" in this Annual Report on page 14.

## Business Review and Performance

For the analysis of business performance and its impact factors in 2019, please refer to the "Finance, Assets and Investment" from page 18 to 25 and the "Business Performance and Outlook" from page 28 to 41.

For the major risks and uncertain factors faced by the Group, please refer to the "Risk Management Report" of this Annual Report from page 141 to 147.

The business outlook of the Group is discussed in different parts of this Annual Report, including the "Chairman's Statement" from page 6 to 8, the "President's Review" from page 9 to 13, the "Business Performance and Outlook" from page 28 to 41, and the "Risk Management Report" from page 141 to 147.

The relationships between the Group and its connected persons of major business are set out in the "Directors' Report" of "Corporate Governance" of this Annual Report from page 119 to 130.

Moreover, environment-related performance and policy of the Group are set out in the part of "Environment Capital" of this Annual Report. Charity-related performance and policy of the Group are set out in the part of "Social and Relationship Capital" of this Annual Report. The discussion on compliance status of relevant laws and regulations that would have a material impact on the Group is set out in the "President's Review" from page 9 to 13, the "Business Performance and Analysis" from page 29 to 40, the "Corporate Governance Report" from page 87 to 118, and the "Supervisory Committee Report" from page 137 to 140.

Save as disclosed in "Events after the Reporting Period" on page 126, there is no event that had a significant impact on the Group's operation, financial and trading prospects from January 1, 2020 to the date of this Annual Report.

The above discussions form part of the Directors' Report.

## Assets

### Fixed Assets and Construction in Progress

Additions to fixed assets and construction in progress of the Group for the year amounted to a total of RMB21,897.4 million. In 2018, a total amount of RMB18,902.4 million was added to fixed assets and construction in progress. Details of changes in fixed assets and construction in progress of the Group are set out in Note (v) 15, and 16 to the Financial Statements.

### Bank Borrowings and Other Borrowings

The total borrowings of the Group as of December 31, 2019 amounted to RMB213,002.3 million (2018: RMB222,716.8 million). Details of borrowings are set out in Note (v) 24, 33, 35 and 36 to the Financial Statements.

### Finance Costs Capitalized

Finance costs amounting to RMB2,265.3 million (2018: RMB4,004.0 million) were capitalized by the Group during the year, the details are as set out in Note (v) 52 to the Financial Statements.

## Major Subsidiaries

For the details of the Company's major subsidiaries, please refer to Note (VII) 1 to the Financial Statements and the "Business at a glance for the year" on page 4 of this Annual Report.

## Share Capital

### Issuance and Listing of Securities

The initial registered share capital of the Company at incorporation was RMB35,300,000,000, being divided into 35,300,000,000 Domestic Shares with a nominal value of RMB1.00 per share, and all the Domestic Shares were held by three promoters.

On December 10, 2014, the Company completed the H-share IPO. The registered share capital of the Company was RMB45,448,750,000, being made up of 34,285,125,000 Domestic Shares and 11,163,625,000 H Shares, representing approximately 75.44% and 24.56% of the registered share capital, respectively.

# Directors' Report

After full exercise of the over-allotment option under the global offering, the registered share capital of the Company increased to RMB45,448,750,000, being made up of 34,285,125,000 Domestic Shares and 11,163,625,000 H Shares, representing approximately 75.44% and 24.56% of the registered share capital, respectively.

On August 26, 2019, the Company completed the A Share IPO. The registered share capital of the Company increased to RMB50,498,611,100, being made up of 11,163,625,000 H Shares, 34,285,125,000 A Shares converted from original Domestic Shares and 5,049,861,100 newly issued A Shares. A Shares and H Shares represent approximately 77.89% and 22.11% of the registered share capital, respectively.

## Purchase, Sale or Redemption of the Company's Listed Shares

During the year ended December 31, 2019, neither the Company nor any of its subsidiaries purchased, sold or redeemed any of the Company's listed shares.

## Equity-Linked Agreements

During the year ended December 31, 2019, neither the Company nor any of its subsidiaries have entered into equity-linked agreements.

## Changes in the Number of Shares and Shareholding Structure during the Reporting Period

	December 31, 2018	Increase/(decrease) due to changes during the Reporting Period	December 31, 2019
Domestic Shares	34,285,125,000	(34,285,125,000)	0
A Shares	0	39,334,986,100	39,334,986,100
H Shares	11,163,625,000	0	11,163,625,000
Total number (Shares)	45,448,750,000	5,049,861,100	50,498,611,100

## Corporate Governance

The Company's corporate governance principles and practices are set out in the "Corporate Governance Report" of this Annual Report on page 87.

## Particulars of Board Meetings

The details of 2019 Board meetings of the Company are set out in "Particulars of Board Meetings" on page 106 of this Annual Report.

## Directors

On December 12, 2019, Zhong Huiling, a non-executive Director, resigned from her position as non-executive Director as well as member of each of the Remuneration Committee and the Nuclear Safety Committee under the Board due to changes in her work commitments. On March 3, 2020, Zhang Shanming, Chairman and non-executive Director of the Company resigned from his position as chairman, non-executive Director, member of the Nomination Committee under the Board of Directors and Chairman of the Nuclear Safety Committee due to changes in his work commitments. The resignation of Ms. Zhong Huiling and Mr. Zhang Shanming will neither cause the number of incumbent members of the Board to fall short of the quorum as provided by the Company Law of the People's Republic of China nor have any effect on the normal operations of the Company.

The biographical details of current Directors are set out in "Board of Directors, Supervisors and Senior Management" on page 80 of this Annual Report. Details of Directors' remuneration are set out in "Remuneration Committee Report" of this Annual Report on page 133.

## Supervisors

On March 8, 2019, Mr. Cai Zihua, an employee representative Supervisor, resigned from his position as employee representative Supervisor due to changes in his work commitments. On the same day, Ms. Zhu Hui was elected as employee representative Supervisor of the Company at the employee representative meeting, with her term effective from the date of appointment until the expiry of the second session of the Supervisory Committee of the Company.

The biographical details of the current supervisors are set out in "Board of Directors, Supervisory Committee and Senior Management" on page 80 of this Annual Report. Details of Supervisors' remuneration are set out in "Remuneration Committee Report" of this Annual Report on page 133.

## Senior Management

The biographical details of the current senior management are set out in "Board of Directors, Supervisory Committee and Senior Management" on page 85 of this Annual Report. Details of the remuneration of senior management are set out in the "Remuneration Committee Report" of this Annual Report on page 133.

## Interests

### Interests of Directors, Supervisors and Chief Executive Officers

Pursuant to the register required to be kept pursuant to Section 352 of Part XV of the Hong Kong Securities and Futures Ordinance, none of the Directors, Supervisors and Chief Executive Officers has any interests/short positions in the shares, relevant shares and debentures of the Company and its associated corporations as of December 31, 2019.

### Shareholders' Interests must be Disclosed under the Hong Kong Securities and Futures Ordinance

Pursuant to Divisions 2 and 3 of Part XV of the Hong Kong Securities and Futures Ordinance, the interests/short positions of the following persons (other than the Directors, Supervisors and Chief Executive Officers of the Company) in the shares and relevant shares of the Company as at December 31, 2019 are set out in the following table.

#### *Aggregate long positions in the shares and relevant shares of the Company*

The Company had been notified of the following shareholders' interests in the shares (other than pursuant to equity derivatives such as share options, call warrants or convertible bonds) of the Company as of December 31, 2019:

Shareholders	Capacity as holder of shares	Number and Class of the Shares held in the Company	Approximate % of the Relevant Shares Classes	Approximate % of the Issued Shares of the Company
CGNPC	Beneficial owner	29,176,641,375 (A Shares)	74.17%	57.78%
Hengjian Investment	Beneficial owner	3,428,512,500 (A Shares)	8.72%	6.79%
NSSF	Beneficial owner	1,014,875,000 (H Shares)	9.09%	2.01%
China Life Insurance (Group) Company	Interest of controlled corporation	894,971,000 <sup>(3)</sup> (H Shares)	8.02%	1.77%
BlackRock, Inc.	Interest of controlled corporation	733,889,655 <sup>(1)</sup> (H Shares)	6.57%	1.45%
Citigroup Inc.	Interest of controlled corporation/person having a security interest in shares/ approved lending agent	657,862,872 <sup>(2)</sup> (H Shares)	5.89%	1.30%

(1) Of which 6,907,000 H Shares are held under equity derivatives.

(2) Of which 21,187,000 H Shares are held under equity derivatives.

(3) 894,971,000 H Shares of the Company are directly held by China Life Insurance Company Limited. 68.37% equity interest in China Life Insurance Company Limited is directly held by China Life Insurance (Group) Company. As such, China Life Insurance (Group) Company is deemed to be interested in 894,971,000 H Shares.

# Directors' Report

## Aggregate short positions in the shares and relevant shares of the Company

The Company had been notified of the following shareholders' short positions in the shares of the Company as of December 31, 2019:

Shareholders	Capacity as holder of shares	Number and Class of the Shares held in the Company	Approximate % of the Relevant Shares Classes	Approximate % of the Issued Shares of the Company
BlackRock, Inc.	Interest of controlled corporation	38,369,000 <sup>(1)</sup> (H Shares)	0.34%	0.08%
Citigroup Inc.	Interest of controlled corporation	26,891,122 <sup>(2)</sup> (H Shares)	0.24%	0.05%

(1) Of which 1,677,000 H Shares are held under equity derivatives.

(2) Of which 1,525,000 H Shares are held under equity derivatives.

## Interests of Other Persons

As of December 31, 2019, the Company had not been notified of any persons other than the above shareholders who had interests or short positions in the shares or underlying shares of the Company, under Divisions 2 and 3 of Part XV of the Hong Kong Securities and Futures Ordinance.

## Material Contracts with Controlling Shareholder

Save as disclosed in the section headed "Connected Transactions" of this Annual Report on page 126, none of the Company or any of its subsidiaries entered into material contracts with the controlling shareholder or any of its subsidiaries other than the Group, nor was there any material contract between the Group and the controlling shareholder or any of its subsidiaries other than the Group in relation to provision of services.

## Controlling Shareholder's Interests in Material Contracts

The details of material contracts entered into between the Company and the controlling shareholder or its subsidiaries have been disclosed in "Connected Transactions" in this Annual Report on page 126.

## Directors' and Supervisors' or Entities Connected with Directors' and Supervisors' Interests in Material Transactions, Arrangements and Contracts

For the year ended December 31, 2019, none of the Company or any of its subsidiaries entered into any material transactions, arrangements or contracts which the Directors and Supervisors or the entities connected with Directors and Supervisors of the Company had material interests, either directly or indirectly.

## Directors' Interests in Competing Businesses

For the year ended December 31, 2019, save as disclosed below, none of the Directors or their associates had any competing interests in any business which competed or was likely to compete, either directly or indirectly, with the business of the Company:

Name of Director	Position in the Company	Other Interests
Zhang Shanming	Chairman of the Board and non-executive Director	President and Director of CGNPC
Gao Ligang	Executive Director	Chairman of the board of GNS
Tan Jiansheng	Non-executive Director	Senior Vice President of CGNPC
Shi Bing	Non-executive Director	Senior Vice President of CGNPC

## Controlling Shareholder's Non-competition Undertakings

CGNPC, the controlling shareholder of the Company, has undertaken that it would not, and it would procure that its associates and connected persons (other than any members of the Group) do not and would not, directly or indirectly, whether on its own account or in conjunction with or on behalf of any person, firm or company, among other things, carry on, participate, be interested or engaged in or acquire or hold (in each case whether as a shareholder, director, partner, agent, employee or otherwise be involved, whether for profit, reward or otherwise), any restricted business during the agreed restricted period.

On the basis of the undertaking of the controlling shareholder to avoid horizontal competition in the Company's A Share IPO, i.e. CGNPC will comply with the deed of non-competition and China General Nuclear Power Corporation's Undertaking to Avoid Horizontal Competition (the "original undertaking"), to further avoid horizontal competition with the issuer, China General Nuclear Power Corporation's Letter of Undertaking on Further Avoiding Horizontal Competition was issued, which further confirmed, undertook and guaranteed that:

### Controlling Shareholder's Non-competition Undertakings



1. CGN Power is the sole platform for final integration of nuclear power generation business of CGNPC.
2. If CGNPC acquires a business opportunity for new development or acquisition of nuclear power projects in the PRC, it will procure that such business opportunity is provided to CGN Power in priority, subject to applicable laws and regulations and the national requirements such as those in relation to qualification of major developer. If CGN Power waives or does not explicitly accept such business opportunity within a reasonable period of time, CGNPC may engage in such business opportunity on terms and conditions no less favourable than those provided to CGN Power.
3. Regarding the domestic retained business owned by CGNPC on the date of this letter of undertaking, taking into account the special nature of the nuclear power industry, CGNPC undertakes that it will invest in CGN Power in accordance with legal procedures no later than five years after the official commencement of construction of the nuclear power project (i.e. the first concrete date of the nuclear island), when such assets meet the requirements for investing in a listed company or when agreeing with CGN Power. Requirements for investing in a listed company include: (1) assets and equity are with clear titles; (2) there was no major administrative penalty in the past 36 months; (3) preservation and appreciation of state-owned assets; and (4) there are no other circumstances that are detrimental to the issuer's continued stable development or to the interests of the issuer and its minority shareholders. When such assets are invested in a listed company, the valuation will be based on the results of asset appraisals filed with relevant authorities or valuation methods that meet the requirements of laws and regulations and relevant authorities, while fully taking into account the interests of the minority shareholders.
4. In the process of transferring the retained business, CGNPC undertakes that the issuer is entitled to the right of first refusal and acquisition option for the retained business proposed to be disposed by CGNPC. Subject to the applicable laws and regulations, CGN Power has the right to acquire any equity, assets and other interests in the retained business and/or competitive business from CGNPC at one time or multiple times at any time, or CGN Power may, in ways as permitted by applicable laws and regulations, choose (including but not limited to) to entrust, lease or contract to operate the assets or business of CGNPC in such retained business and/or competitive business.
5. CGNPC undertakes that, if CGNPC violates this undertaking and causes CGN Power to suffer any loss from the effective date of this letter of undertaking, CGNPC shall bear the liability of compensation.

CGNPC confirms that it has complied with the above undertakings during the year. For the details of material contracts which provided services to the Group by CGNPC, please refer to "Connected Transactions" on page 126 in this Annual Report.

# Directors' Report

## Pre-emptive Rights

There are no provisions for pre-emptive rights under the Articles of Association or the relevant laws of the PRC, under which the Company is required to issue new shares to its existing shareholders on a pro rata basis.

## Distributable Reserves

As of December 31, 2019, our reserves available for distribution to our equity holders amounted to approximately RMB23,667.72 million (representing retained earnings of the parent company of approximately RMB23,667.72 million).

## Management Contracts

For the year ended December 31, 2019, except for service contracts entered into with the Directors and the Supervisors, the Company did not enter into any contract in respect of the management or administration of the entire or any substantial part of the business of the Company and no such contract existed.

## Major Customers and Suppliers

### Major Customers

Most of our revenue comes from the sales of electricity generated by NPPs in which we have controlling interest. During the year, our total sales to the top five customers accounted for 96.04% of the Group's total revenue. Below is the information of the top five customers in descending order:

CSG (representing 61.83% of our total revenue): The Group did not hold any interest in this company. CSG is a company under the SASAC. It is engaged in the investment, construction and operation management of the power grid in South China, operation of relevant power transmission and distribution, power dispatch control, operation and maintenance of the power grid. Under a long-term agreement, the Group sold the electricity generated by the NPPs in Daya Bay, Ling'ao, Lingdong, Yangjiang, Taishan and Fangchenggang to Guangdong Power Grid Co., Ltd. and Guangxi Power Grid Co., Ltd. under the CSG.

Fujian Electric Power Co., Ltd. (福建省電力有限公司) (representing 14.85% of our total revenue): The Group did not hold any interest in this company. Fujian Electric Power Co., Ltd. is a company under the State Grid Corporation of China. It is engaged in operation of relevant power transmission and distribution, power dispatch control, operation and maintenance of the power grid. Under a long-term agreement, the Group sold the electricity generated by Ningde Nuclear Power Station to Fujian Electric Power Co., Ltd.

HKNIC (representing 9.46% of our total revenue): This company is a subsidiary of CLP Holdings Ltd. (a company listed on the Hong Kong Stock Exchange (stock code: 0002), "CLP Holdings"), holding a 25% equity interest in Guangdong Nuclear Power Joint Venture Co., Ltd. It is a connected person of the Group. Under a long-term agreement, the Group sold some of the electricity generated by the Daya Bay Nuclear Power Station to HKNIC.

CGNPC (representing 6.45% of our total revenue): CGNPC, the controlling shareholder of the Company, is a large-scale power group engaging in the production and supply of nuclear power-based electricity, and provision of related professional technical services. The Group mainly offers general services, technical support and maintenance services and engineering services to CGN Group.

Hongyanhe Nuclear (representing 3.45% of our total revenue): Hongyanhe Nuclear is an associate of the Group, and is responsible for the investment, construction and operation of Hongyanhe Nuclear Power Station. The Group offer nuclear station construction and design, training, repairing, technical research and professional support to Hongyanhe Nuclear.

## Major Suppliers

Our major suppliers include providers of nuclear fuel and related services, project construction and technical support. During the year, our purchases from the top five suppliers accounted for 68.44% of the Group's total annual procurement. Below is the information of the top five suppliers in descending order:

1. China National Nuclear Corporation ("CNNC") (representing 36.68% of the Group's total procurement): The Group did not hold any interest in this company. CNNC engages in nuclear power engineering construction installation and technical services and other businesses. We mainly purchase processing service of nuclear fuel components, nuclear island construction and unit maintenance services from CNNC.
2. CGNPC (representing 14.54% of the Group's total procurement): CGNPC, the controlling shareholder of the Company, is a large-scale power group engaging in the production and supply of nuclear power-based electricity, and provision of related professional technical services. We mainly purchase general services, technical support and maintenance services and nuclear fuel supplies and services from CGN Group.
3. China State Construction Engineering Corporation Ltd. ("CSCEC") (representing 6.71% of the Group's total procurement): The Group did not hold any interest in this company. CSCEC mainly offers construction and installation services for enterprises. We mainly purchase regular islands construction and installation services from CSCEC and its subsidiaries.
4. Shanghai Electric Group Co., Ltd. (上海電氣集團股份有限公司) ("Shanghai Electric") (representing 6.06% of the Group's total procurement): The Group did not hold any interest in this company. Shanghai Electric is a supplier of efficient clean energy and new energy equipment. We mainly purchase equipment including steam turbine generator and related technical services from Shanghai Electric and its subsidiaries.
5. China Energy Engineering Group Co., Ltd. ("Energy Engineering Group") (representing 4.4% of the Group's total procurement): The Group did not hold any interest in this company. Energy Engineering Group is a large-scale energy construction enterprise integrating electric power and energy planning consultation, survey and design, and engineering contracting. We mainly purchase project construction and related technical services from Energy Engineering Group and its subsidiaries.

Save as disclosed above, during the year, to the knowledge of Directors, none of our Directors or Supervisors, their respective associates or any of our shareholders holding more than 5% of our issued shares, held any interest in any of our top five suppliers or top five customers.

We upheld the concept of mutual benefit and win-win cooperation, and maintained continuous and close relationship with our stakeholders including customers and suppliers. We adhere to the principles of openness, fairness, justice and compliance, so we continued to establish a comprehensive tender system and supplier management system, and improved the quality management of upstream and downstream in the industrial chain. Through constructive communication, we endeavored to balance the opinions and interests of the stakeholders, thereby setting the long-term development direction for the Company and the regions where our business operates. Please refer to the 2019 ESG Report issued by the Company for more information.

## Exchange Rate

For the year ended December 31, 2019, the Group faced no major difficulties or impacts regarding its operations or capital flow due to the fluctuation of foreign exchange rate. For the risk of exchange rate fluctuations of the Company, we have been adhering to the principle of prudence, conducting timely debt hedging and risk prevention arrangements to reduce the impact of financial market volatility on the Company's operating costs, expected earnings and cash flow. For the risk management of exchange rate volatility, please refer to the section of "Financial Capital" on page 70 in this Annual Report.

# Directors' Report

## Events after the Reporting Period

- On January 8, 2020, the Company convened the fourteenth meeting of the second session of the Board, at which the Resolution on the First Exercise Plan of the Second Grant of the H-Shares Appreciation Rights Incentive Scheme of CGN Power Co., Ltd. was considered and approved. Pursuant to the calculation rules specified in the Second Grant of the H-Shares Appreciation Rights Incentive Scheme, after deducting the amount of 2018 dividends, the exercise price under the second grant of the H-Shares Appreciation Rights Incentive Scheme is changed to HK\$1.9223 per share from HK\$2.09 per share.
- Since the outbreak of the novel coronavirus pneumonia ("COVID-19") nationwide in January 2020, the Group had strictly implemented various epidemic prevention requirements of the central and local governments to ensure the safe and stable operation of nuclear power generating units in operation. COVID-19 had a certain impact on the overall economic operation and power demand, which had led to a certain degree of load reduction of nuclear power units after the Lunar New Year. With the resumption of work and production, social power demand has gradually increased, and the impact of COVID-19 on the production and operation of the Group has gradually decreased. The Group will continue to pay close attention to the development of COVID-19, continue to do a good job in production safety and epidemic prevention and control, and assess its impact on the financial status and operating results of the Group. As of the approval date of this Annual Report, the evaluation is still in progress.

## Connected Transactions

In 2019, we followed a principle of fairness, justice, bona fide and competitive preference in the course of our transactions with suppliers. For business with an open market, we adopted competitive procurement by continuing to require connected persons to provide us with the relevant materials, products and services through the bidding procedures for standardizing connected transactions. In the actual course of business, we signed one-off connected transaction agreements and continuing connected transaction agreements with connected persons, which constitute major connected transactions of the Group in 2019, after taking into consideration our partnership established with connected persons, familiarity with their respective businesses as well as the factors such as service quality, price and work efficiency.

### One-off Connected Transaction

Due to the fact that: (1) CGNPC owns a 57.78% equity interest in the Group; and (2) Datang International Power Generation Co., Ltd. (大唐國際發電股份有限公司), a subsidiary of China Datang Corporation Ltd. (中國大唐集團有限公司), holds a 44% equity interest in Ningde Nuclear (a subsidiary indirectly owned as to 32.29% by the Company); under Rules 14A.07 (1) and (4) of the Listing Rules, CGNPC and its associates, and China Datang Corporation Ltd. (中國大唐集團有限公司) and its associates are our connected persons. The following transactions constitute major one-off connected transactions of the Group with its connected persons.

### Disposal of 100% equity interests in Shanghai Company

To further optimize the business structure of CGN Engineering and improve the operating efficiency of the Group, CGN Engineering and CGNPC entered into an equity transfer agreement in relation to the disposal of 100% equity interests in Shanghai Company on January 4, 2019.

Pursuant to the equity transfer agreement, the consideration of the disposal of the target equity interest amounted to approximately RMB719.60 million (adjusted according to the equity transfer agreement). The agreement was approved by the Board on January 4, 2019, and the transaction was completed. Shanghai Company ceased to be owned by a subsidiary of us.

### Execution of Ningde Phase II Construction General Contracting Framework Agreement Arrangement

In order to ensure the safe production of Ningde Nuclear Power Base and the smooth construction of the Ningde Phase II project, and to further expand the operation of the Group, on January 4, 2019, CGN Engineering and CGN Design entered into the Ningde Phase II Construction General Contracting Framework Agreement Arrangement with, among others, Ningde Second Nuclear, an indirect subsidiary of China Datang Corporation Ltd. (中國大唐集團有限公司), to provide construction general contracting services for the relevant construction and management of related projects in the early stages of the Ningde Phase II project.

According to the framework agreement arrangement, the estimated total consideration of the provision of construction general contracting services amounted no more than RMB4,689.21 million, and the framework agreement arrangement was approved by the Board on January 4, 2019.

## Capital increase in CGN Finance

To further increase the capital adequacy ratio of CGN Finance, enhance its risk resistance capability and strengthen its ability of sustainable development, thereby ensuring the stability of income from equity investments in CGN Engineering and further improving the safety of deposits placed in CGN Finance by the Group, on August 21, 2019, CGN Engineering, together with other existing shareholders of CGN Finance, namely CGNPC and its subsidiary CGN Services Group, determined to increase their capital in CGN Finance by way of cash in proportion to their respective shareholding.

According to the capital increase in CGN Finance, CGN Engineering settled the payment of RMB120.00 million with its internal resources. The capital increase was approved by the Board on August 21, 2019. As of December 31, 2019, the payment was settled. CGN Finance will remain to be indirectly owned as to 30% by CGN Engineering. The capital increase will not have any material impact on the financial position of the Company.

## Continuing Connected Transactions

Due to the fact that: (1) CGNPC owns a 57.78% equity interest in the Group; and (2) HKNIC, a wholly-owned subsidiary of CLP Holdings Ltd., and CLP Nuclear Power Operations & Management (China) Limited (中電核電運營管理(中國)有限公司) hold a 25% equity interest in Guangdong Nuclear Power Joint Venture Co., Ltd. (廣東核電合營有限公司) (a subsidiary indirectly owned as to 75% by the Company) and 12.5% equity interest in DNMC (a subsidiary indirectly owned as to 87.5% by the Company) respectively; under Rules 14A.07 (1) and (4) of the Listing Rules, CGNPC and its associates, and CLP Holdings Ltd. and its associates are our connected persons.

During the year, the Company had entered into the following continuing connected transaction agreements with the connected persons as defined in the Listing Rules, and carried out the specific transactions according to the terms of such agreements. The continuing connected transactions carried out in 2019 are as follows:

Nature of Transaction	Annual Cap for 2019 (RMB'000)	Actual Transaction Amount for 2019 (RMB'000)
General Services Framework Agreement <sup>(1)</sup>		
Payment to the CGN Group:	1,861,235.67	1,470,104.05
Receipt from the CGN Group:	363,290.74	154,122.13
Technical Support and Maintenance Services Framework Agreement <sup>(2)</sup>		
Payment to the CGN Group:	1,035,164.19	491,215.10
Receipt from the CGN Group:	114,885.05	101,725.76
Supplemental Agreement to the Engineering Services Framework Agreement <sup>(3)</sup>		
Receipt from the CGN Group:	13,083,650.00	3,824,921.78
Renewed Financial Services Framework Agreement <sup>(4)</sup>		
Payment to the CGN Group in relation to settlement, entrustment loans and other financial services:	25,600.00	6,411.53
Maximum daily balance of deposits placed by our Group with the CGN Group and interest income:	29,404,000.00	19,133,270.43
Maximum daily balance of loans provided by the CGN Group to our Group:	34,896,000.00	22,437,763.79
Supplemental Agreement to the Nuclear Fuel Supply and Services Framework Agreement <sup>(5)</sup>		
Payment to the CGN Group:	6,610,992.00	1,125,078.08
Electricity Supply Arrangement under the Joint Venture Contract <sup>(6)</sup>		
Tariff on sale of electricity to HKNIC:	6,974,000.00	5,757,535.77

# Directors' Report

- (1) It was renewed on March 8, 2018, which would be valid until December 31, 2021, pursuant to which the Group and CGN Group will provide general services to each other.
- (2) It was renewed on March 8, 2018, which would be valid until December 31, 2021, pursuant to which the Group and CGN Group will provide technical support and maintenance services to each other.
- (3) It was entered into on November 21, 2014 on normal commercial terms, and the supplemental agreement to the 2014 Engineering Services Framework Agreement was entered into on September 25, 2016, which would be valid until December 31, 2019, pursuant to which the Group will provide engineering services to CGN Group. Pursuant to the 2014 Engineering Services Framework Agreement, in 2019, the annual cap of total amount payable to the CGN Group by the Group was RMB6,890,000,000.00. The annual cap was renewed by the supplemental agreement to the engineering services framework agreement signed in 2016. Please refer to the above table for relevant data.  
  
The Group and CGN Group renewed the Engineering Services Framework Agreement on March 12, 2019 on normal commercial terms, which would be valid until December 31, 2022, pursuant to which the Group will provide engineering services to CGN Group.
- (4) It was renewed on March 8, 2018, which would be valid until December 9, 2021, pursuant to which CGN Group will provide financial services to us.
- (5) It was entered into on November 21, 2014 on normal commercial terms and the supplemental agreement to the 2014 Nuclear Fuel Supply and Services Framework Agreement was entered into on September 25, 2016, and would be valid until December 31, 2023, pursuant to which CGN Group will provide us with nuclear fuel supplies and services. Pursuant to the 2014 Nuclear Fuel Supply and Services Framework Agreement, in 2019, the annual cap of total amount payable to the CGN Group by the Group was RMB4,106,000,000.00. The annual cap was updated by the supplemental agreement to the nuclear fuel supply and services framework agreement signed in 2016. Please refer to the above table for relevant data.
- (6) It was entered into on January 18, 1985 and renewed on September 29, 2009 and would be valid until May 6, 2034, pursuant to which the Group will sell electricity to HKNIC. The Group entered into the 2018 Increased Power Purchase Agreement with HKNIC on December 28, 2018 on normal commercial terms, which would be valid until December 31, 2023, pursuant to which the Group will provide increased electricity sales services to HKNIC.

In addition to the above continuing connected transactions, our continuing connected transactions in 2019 included trademark license agreement, custodian service framework agreement and guarantee from CGNPC, which were exempted from the reporting, annual review, announcement and independent shareholders' approval requirements under Chapter 14A of the Listing Rules.

## Connected Transaction Management



To ensure the fairness, justice and openness of procurement business, we have formulated the internal control standards related to management of contracts and procurements, whereby all departments of the Company shall monitor and restrict each other, and the procurements that are within the scope of mandatory tendering as required by the Bidding Law and its related regulations shall be carried out through tendering in strict accordance with the relevant laws and regulations.

We have formulated a series of internal control measures. Based on the past experience in the management of connected transactions, we continuously improve the connected transaction management system and management procedures, standardize the pricing principle and method of connected transactions, manage the assignment of responsibility and decision making authority, and specify the requirements for information disclosures. During the execution of the connected transactions, we have strictly complied with the connected transaction management system and procedures. For example, we report the execution of continuing connected transactions during the year, management of connected transactions during the year and the audit opinion from external auditors to the Board on an annual basis.

In 2019, when carrying out management of connected transactions, we adopted a series of measures to ensure the compliance with relevant laws and regulations in respect of connected transactions. We continued our quarterly review on the management of connected transactions within the Group, and made analysis and corrections promptly on the problems found during review, thereby ensuring that the continuing connected transactions were conducted in compliance with the terms of the relevant framework agreement of continuing connected transactions. According to the Company's practice of connected transaction management ever since its listing, we have been actively exploring the possibility of connected transaction management through information technology methods, so as to consolidate relevant rules and enhance management efficiency. Meanwhile, we continued to organize trainings which provide an update on the regulatory requirements in the places where the shares of the Company are listed and exchanges for our main subsidiaries and main connected persons, and strengthened the communication with new management personnel of connected transactions in our subsidiaries, which enabled better understanding and performance of the management requirements of the Company.

---

The independent non-executive Directors of the Company have examined the specific implementation of the continuing connected transactions and confirmed that:



- the transactions were entered into in the ordinary and usual course of business of the Company;
- the transactions were carried out on normal commercial terms or more favorable terms; and
- the transactions were carried out in accordance with the framework agreements in respect thereof, the terms of which were fair and reasonable and in the interest of our shareholders as a whole.

We have also engaged an external auditor to review the Group's continuing connected transactions to ensure that the transactions carried out under the framework agreements will be in compliance with the requirements under the Listing Rules. The Board has confirmed that the auditor has issued an unqualified letter in respect of the aforesaid continuing connected transactions in accordance with Rule 56 of Chapter 14A under the Listing Rules and reported the results in this letter to the Board, and a copy of the auditor's letter was submitted to the Hong Kong Stock Exchange.

---

The letter stated that:



- the relevant continuing connected transactions have been approved by the Board;
- in relation to the relevant continuing connected transactions involving the provision of goods and services by the Group, nothing has come to their attention that causes them to believe that the transactions were not, in any material respects, in accordance with the pricing policies of the Group;
- the relevant continuing connected transactions were conducted pursuant to the relevant framework agreements governing those transactions; and
- the relevant continuing connected transactions did not exceed the respective annual caps applicable to such transactions.

The Company has complied with the disclosure requirements under the Listing Rules of the places where the shares of the Company are listed.

## Related Party Transactions

Details of the significant related party transactions carried out in the normal course of business are set out in Note (X) to the Financial Statements. Save as the connected transactions disclosed above, none of these related party transactions constitutes a discloseable connected transaction as defined under the Listing Rules.

## Permitted Indemnity Provisions

At no time during the year ended December 31, 2019 and up to the date of this report, there was or is, any permitted indemnity provision being in force for the benefit of any of the Directors and Supervisors (whether made by the Company or other parties) or any of those of an associated company (if made by the Company).

The Company took out directors' liability insurance for Directors during the year. The relevant insurance covers the liability of Directors and the related costs incurred by the Directors in respect of potential legal proceedings against them arising out of corporate activities.

# Directors' Report

## Auditor

The consolidated financial statements for the year have been audited by Deloitte, its term of appointment shall expire on the date of the AGM of the Company.

## Remuneration Policy

For details of the Company's remuneration policy, please refer to the section headed "Human Capital" on page 62 and the section headed "Remuneration Committee Report" on page 133.

## Remuneration of Directors and Five Individuals with the Highest Remuneration

Details of the remuneration of the Directors and the five individuals with the highest remuneration are set out in Note (X)5(6) to the Financial Statements.

## Employee Retirement Benefits

For details of the Company's employee retirement benefits, please refer to the section headed "Remuneration Committee Report" on page 133.

## Charitable Donations

For the year ended December 31, 2019, the Group adhered to the national planning on poverty alleviation in the new era and make active efforts in poverty alleviation to fulfill its social responsibilities. In 2019, the Group incurred a total of RMB19,490,700 for poverty alleviation and other donations.

The Board of Directors

March 25, 2020



# Audit and Risk Management Committee Report

## Composition and Duties

The members of the Audit and Risk Management Committee were appointed by the Board, comprising three members, namely Francis Siu Wai Keung (蕭偉強) (the chairman of the Audit and Risk Management Committee and an independent non-executive Director), Na Xizhi (那希志) (an independent non-executive Director) and Zhang Yong (張勇) (a non-executive Director). The details of their personal particulars are set out in the "Board of Directors, Supervisory Committee and Senior Management" on page 81-82 of this Annual Report.

The Board has delegated to the Audit and Risk Management Committee with written terms of reference prepared according to the relevant requirements of the Articles of Association, the Company Law of the PRC, the Listing Rules, A Guide for Effective Audit Committees published by the Hong Kong Institute of Certified Public Accountants. The Audit and Risk Management Committee shall be responsible for examining the regular financial statements of the Company, the appointment of independent auditors, and audit fees and other matters. The terms of reference are detailed in the Terms of Reference for the Audit and Risk Management Committee under the Board of Directors of CGN Power Co., Ltd. and available on the websites of the Company and the Hong Kong Stock Exchange. For details, please refer to the "Corporate Governance Report" on page 104 of this Annual Report.

Meetings of the Audit and Risk Management Committee shall be held on a regular basis per year or an extraordinary meeting shall be convened when necessary. The meetings shall discuss financial report, internal audit work plan and internal control and risk management related issues, and listen to working reports from the Company's management, review the Company's regular report, etc. The Audit and Risk Management Committee may, if needed, engage relevant professional institutions and listen to experts' advice from professional institutions before making decisions and recommendations to the Board.

On August 26, 2019, A shares of the Company were issued and listed on the SZSE, and Terms of Reference for the Audit and Risk Management Committee under the Board of Directors came into effective after being approved at the Fourth extraordinary meeting of the second session of the Board of Directors held on 25 April, 2018.

## Annual Work Summary



In 2019, the Audit and Risk Management Committee convened seven meetings to consider 23 resolutions. All members expressed independent opinions, which were reported to the Board by the chairman of the committee. The Audit and Risk Management Committee considered resolutions in relation to the interim and annual financial reports and the appointment of audit firms of the Company for 2019, as well as the resolutions in relation to the internal control and risk management, including the internal control assessment report and risk management assessment report for the year 2018, and the internal control assessment plan and risk management assessment plan for the year 2019. The committee also considered the resolutions in relation to the annual plans concerning the relevant work such as the 2019 internal audit plan of the Company and working plan of the committee so as to make reasonable arrangement for the relevant audit and its own work.

Audit and Risk Management Committee  
March 25, 2020

# Remuneration Committee Report

## Composition and Duties

The members of the Remuneration Committee were appointed by the Board, comprising Hu Yiguang (胡裔光) (the chairman of the Remuneration Committee and an independent non-executive Director), Francis Siu Wai Keung (蕭偉強) (an independent non-executive Director) and Zhong Huiling (鍾慧玲) (a non-executive Director, resigned on 12 December, 2019). The details of their personal particulars are set out in the "Board of Directors, Supervisory Committee and Senior Management" on page 82 of this Annual Report.

The Board has delegated to the Remuneration Committee with written terms of reference prepared according to the Articles of Association, the Company Law of the PRC, the Listing Rules and other related provisions. The Remuneration Committee shall be mainly responsible for making recommendations on the remuneration of the Directors, Supervisors and senior management of the Company and other matters. The terms of reference are detailed in Terms of Reference for the Remuneration Committee under the Board of Directors of CGN Power Co., Ltd. and available on the websites of the Company and the Hong Kong Stock Exchange. For details, please refer to the "Corporate Governance Report" on page 105 of this Annual Report.

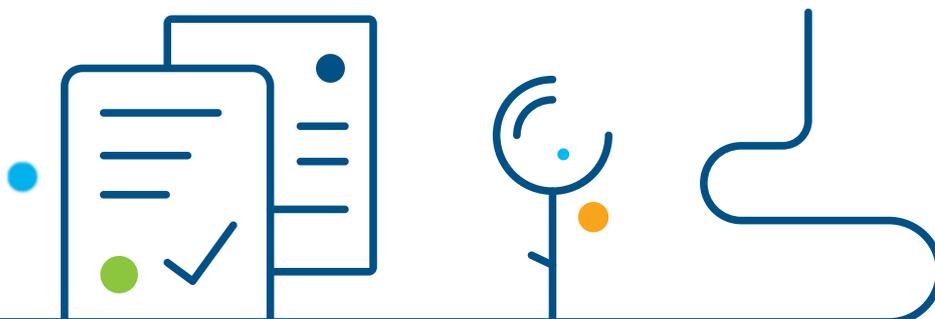
Meetings of the Remuneration Committee shall be held at least once a year or an extraordinary meeting shall be convened where necessary. The meetings shall discuss the annual work plan and listen to the work report of the Company's management, review the report of the Remuneration Committee as well as formulate the remuneration allocation plan and methods, etc. The Remuneration Committee may, if needed, engage professionals and listen to expert advice from professional institutions before making decisions and recommendations to the Board.

---

## Annual Work Summary



In 2019, the Remuneration Committee convened three meetings to consider six resolutions. Independent opinions were expressed at each committee meeting, which were reported to the Board by the chairman of the committee. The committee monitored and assessed the performance of executive Directors, had discussions on the assessment criteria of the management, and reviewed and evaluated their work on a regular basis, pursuant to which the committee also discussed the remuneration of executive Directors and senior management and made recommendation to the Board.



## Remuneration for Directors, Supervisors and Senior Management

The remuneration for the Directors appointed by the controlling shareholder and the participating shareholders of the Company shall be paid by the company they work for. The remuneration for the independent non-executive Directors appointed by the Company is determined by factors such as the size of the Company, the industry in which the Company operates, and with reference to the appointments held by the Director in the Board Committees.

The remuneration for executive Directors of the Company is determined in accordance with the remuneration requirements of the Company.

The remuneration for the Supervisors appointed by the controlling shareholder of the Company shall be paid by the company they work for. The remuneration for employee representative Supervisors is determined in accordance with the remuneration requirements of the Company. The remuneration for non-employee representative Supervisors is determined by factors such as the size of the Company and the industry in which the Company operates.

The remuneration of senior management of the Company is determined in accordance with the remuneration requirements of the Company.

The sum of remunerations for Directors, Supervisors and senior management in 2019 are set out below. For details of the remuneration for Directors, Supervisors and senior management and the details of the remunerations for the five individuals with the highest remuneration in 2019, please refer to Note (X)5(6) to the financial statements.

	Fees RMB' 000	Salaries, other allowances and discretionary bonus RMB' 000	Pension scheme* contributions RMB' 000	Total RMB' 000
Directors	1,600	1,325	123	3,048
Supervisors <sup>#</sup>	300	3,449	247	3,996
Senior management <sup>#</sup>	–	12,031	562	12,593

\* The remuneration data includes the bonuses for the three-year operating performance evaluation plan from 2016 to 2018.

\* Pension scheme: The Group contributes a certain proportion of the salaries of all the staff for their basic pension insurance according to the national and local regulations on pensions, and the staff will collect their pension according to the local policies upon retirement. In addition, the Company has also launched a corporate pension plan. According to the plan, the Company will contribute an amount not exceeding 5% of the individually contracted remuneration per month and the individuals will contribute an amount not exceeding one-third of the contribution from the Company, and the staff can collect such pension from their individual accounts each month upon retirement. Other than this, the Company has no more responsibilities for the pension scheme of the staff.

The details of remuneration for senior management officers of the Company for 2019 are set out below:

	Fees RMB' 000	Salaries, other allowances and discretionary bonus RMB' 000	Pension scheme* contributions RMB' 000	Total RMB' 000
Gao Ligang	–	1,325	123	1,447
Su Shengbing	–	3,643	144	3,786
Yin Engang	–	2,015	125	2,140
Chen Yingjian	–	2,637	141	2,778
Jiang Dajin	–	3,736	152	3,888

Remuneration Committee  
March 25, 2020

# Nomination Committee Report

## Composition and Duties

The members of the Nomination Committee were appointed by the Board, comprising three members, namely Na Xizhi (那希志) (the chairman of the Nomination Committee and an independent non-executive Director), Zhang Shanming (張善明) (Chairman and non-executive Director, resigned on March 3, 2020) and Hu Yiguang (胡裔光) (an independent non-executive Director). Their personal particulars are set out in the "Board of Directors, Supervisory Committee and Senior Management" on page 80 to 82 of this Annual Report.

The Board has delegated to the Nomination Committee with written terms of reference prepared according to the Articles of Association, the Company Law of the PRC, the Listing Rules and other related provisions. The Nomination Committee shall be responsible for reviewing the structure of the Board on a regular basis, making recommendations on the members of the Board and senior management officers, verifying the independence of independent non-executive Directors and other matters. The terms of reference are detailed in the Terms of Reference for the Nomination Committee under the Board of Directors of CGN Power Co., Ltd. and available on the websites of the Company and the Hong Kong Stock Exchange. For details, please refer to the "Corporate Governance Report" on page 105 of this Annual Report.

Meetings of the Nomination Committee shall be held at least once a year or an extraordinary meeting shall be convened where necessary. The meetings shall review the composition of the Board and the policy on Board diversity and discuss the annual work plan, etc. The Nomination Committee may, if needed, engage relevant professional institutions and listen to their advice before making decisions and recommendations to the Board.

---

## Annual Work Summary



In 2019, the Nomination Committee convened three meetings to consider six resolutions. The independence of independent Directors was examined, and issues such as performance report of directors and plan on selection of new session of the Board were reviewed and considered at the meetings. Such opinions were reported to the Board by the chairman of the committee.

The Nomination Committee reviewed and considered that: the current session of the Board comprises of seven Directors, which meets the statutory requirement; the Board has a reasonable structure, the skills, knowledge, experience and diversity of Directors meet the governance requirements, and all independent non-executive Directors are able to express independent opinions on connected transactions and other matters; the independent non-executive Directors have confirmed their independence by signing the independence confirmation letters, and the Company has yet to receive any personal information feedback from the independent non-executive Directors which will affect their independence.

## Policy on Board Diversity

The Board has approved the Board Diversity Policy of CGN Power Co., Ltd. 《中國廣核電力股份有限公司董事會成員多元化政策》, setting forth: (1) purpose of the policy; (2) outlook; (3) principles; (4) candidates of the Board should be considered for various factors including but not limited to gender, age, culture and education background, race, professional experience, skills, knowledge and term of services; and (5) review and report. The policy is available on the Company's website.

Pursuant to the Board Diversity Policy of the Company of CGN Power Co., Ltd., the Company formulated the assessment indicators for reviewing the structure and composition of the Board, including age, gender and profession. The relevant indicators complied with the Listing Rules and the Board Diversity Policy of the Company.

## Director Nomination Policy

The Board has approved the Director Nomination Policy of CGN Power Co., Ltd. 《中國廣核電力股份有限公司董事提名政策》 at the eighth meeting of the second session of the Board on November 14, 2018, setting forth (1) the responsibility of director selection; (2) the nomination body for directors; (3) the nomination procedure for directors; (4) the qualifications of independent non-executive Directors; (5) the resignation and term of office of directors, the re-election and selection of new session of the Board, and other matters.

The policy is available on the Company's website.

The Nomination Committee formulated the assessment indicators for performance of Directors, which includes the inspections, training sessions and meetings (including meetings of the Board and its special committees) attended by the Directors.

Nomination Committee  
March 25, 2020

# Nuclear Safety Committee Report

## Composition and Duties

The members of the Nuclear Safety Committee were appointed by the Board, comprising five members, namely Zhang Shanming (張善明) (Chairman of the Nuclear Safety Committee, Chairman and non-executive Director, resigned on March 3, 2020), Gao Ligang (高立剛) (an executive Director), Zhong Huiling (鍾慧玲) (a non-executive Director, resigned on 12 December, 2019), Zhang Yong (張勇) (a non-executive Director) and Na Xizhi (那希志) (an independent non-executive Director). Their biographical details are set out in the “Board of Directors, Supervisory Committee and Senior Management” of this Annual Report on page 80 to 81.

The Board has delegated to the Nuclear Safety Committee with written terms of reference prepared according to the Articles of Association, the Company Law of the PRC, the Production Safety Law of the PRC, the Listing Rules and other related provisions. The terms of reference are detailed in the Terms of Reference for the Nuclear Safety Committee under the Board of Directors of CGN Power Co., Ltd. and available on the websites of the Company and the Hong Kong Stock Exchange. For details, please refer to the “Corporate Governance Report” on page 106 of this Annual Report.

Meetings of the Nuclear Safety Committee shall be held at least twice a year. The meetings shall discuss the internal nuclear safety management plan of the Company and listen to working reports from the Company's relevant departments. The Nuclear Safety Committee may, if needed, engage relevant professional institutions and listen to experts' advice from professional institutions before making recommendations to the Board. The Nuclear Safety Committee shall perform duties as prescribed in the Articles of Association. The committee shall be responsible for receiving the report on nuclear safety of the Company and the assessment report on the Company by third party institutions and other matters.

## Annual Work Summary



In 2019, the Nuclear Safety Committee convened two on-site meetings to consider six resolutions, including safety and quality control, equipment management, quality enhancement and relevant benchmarking work of the Company. All members expressed independent opinions, which were reported to the Board by the chairman of the committee. The Nuclear Safety Committee considered that the safety management work of the Company in 2019 was practical with a focus on enhancing major equipment management and construction quality enhancement. In addition, with consistent transparency in the nuclear safety culture, safety performance indicators were gradually increasing. The Nuclear Safety Committee will continue to facilitate the improvement of safety management, strengthen nuclear power equipment management and enhance construction quality, so as to ensure that the operational objectives of the Company are achieved.

**Nuclear Safety Committee**  
March 25, 2020

# Supervisory Committee Report

## Composition

The Company has five Supervisors, of which two are employee representative Supervisors and three are non-employee representative Supervisors. Ms. Zhu Hui (朱慧) and Mr. Wang Hongxin (王宏新) were appointed as employee representative Supervisors, while Mr. Chen Sui (陳遂) (the Chairman of the Supervisory Committee), Mr. Yang Lanhe (楊蘭和) and Mr. Chen Rongzhen (陳榮真) were appointed as non-employee representative Supervisors.

Biographical details of the current Supervisors are set out in the "Board of Directors, Supervisory Committee and Senior Management" on page 82 to 84 of this Annual Report.

The Supervisory Committee shall convene at least two regular meetings per year, and extraordinary meetings of the Supervisory Committee when considered necessary by the Chairman of Supervisory Committee or proposed by other Supervisors. Members of the Supervisory Committee perform their supervisory duties and responsibilities pursuant to the laws, regulations, the Articles of Association and the mandate granted by the general meeting, and shall be accountable to the general meeting, in order to protect the interests of the shareholders, the Company and the legitimate interests of staff against infringements.

## Duties and Responsibilities



To review the regular report of the Company prepared by the Board of Directors and submit review opinions in written form;



To review the Company's financial position;



To supervise Directors and senior management to ensure that they do not act in contravention of any law, administrative regulation or the Articles of Association in performing their duties, and to advise on dismissal of Directors or senior management who are in breach of laws, administrative regulations, the Articles of Association or resolutions of the general meetings;



To demand Directors or senior management to rectify their error if they have acted in a harmful manner to the Company's interest;



To check and inspect the financial information such as the financial reports, business reports and profit distribution plans to be submitted by the Board to the general meetings, and to engage, in the Company's name, certified public accountants or practicing auditors to assist in reviewing such information should any doubt arise in respect thereof;



To make proposals at a general meeting;



To propose to convene an EGM; where the Board fails to perform the duties in relation to convening or chairing a general meeting as required by the Company Law, to convene and chair a general meeting;



To propose to convene an extraordinary Board meeting;



To represent the Company in negotiations with or in bringing actions against a Director or senior management according to Article 151 of the Company Law;



To investigate into any abnormalities in operation of the Company; if necessary, to engage accounting firms, law firms and other professional institutions to assist its work, and the expenses incurred shall be borne by the Company; and



To perform other duties and powers as stipulated in the Articles of Association.

# Supervisory Committee Report

## Annual Work Summary



During the reporting period, the Supervisory Committee convened seven meetings. The Supervisors attended all on-site meetings of the Board, and focused on the review of the annual and interim financial reports, profit distribution plan of the Company, and the use of the funds raised (A Share) to replace the self-raised funds that had been invested in investment projects in advance. The Chairman of the Supervisory Committee attended or appointed Supervisor representatives to attend all general meetings and supervised the voting results of the general meeting.

The meetings convened by the Supervisory Committee in 2019 are as follows:

Number	Meeting	Date	Method of Convening	Attendance/Number of Supervisors
1	Tenth meeting of the second session of the Supervisory Committee	February 26, 2019	By teleconference	5/5
2	Eleventh meeting of the second session of the Supervisory Committee	March 11, 2019	Physical	5/5
3	Twelfth meeting of the second session of the Supervisory Committee	April 12, 2019	By teleconference	5/5
4	Thirteenth meeting of the second session of the Supervisory Committee	May 27, 2019	By teleconference	5/5
5	Fourteenth meeting of the second session of the Supervisory Committee	August 21, 2019	Physical	5/5
6	Fifteenth meeting of the second session of the Supervisory Committee	September 12, 2019	By teleconference	5/5
7	Sixteenth meeting of the second session of the Supervisory Committee	October 30, 2019	Physical	4*/5

\* Mr. Chen Sui did not attend the sixteenth meeting of the second session of the Supervisory Committee due to other business affairs

The Supervisory Committee reviewed matters for the Board's regular meetings. In particular, pursuant to its responsibilities, the Supervisory Committee reviewed the following contents and expressed its opinions, and all resolutions requiring voting were passed by the Supervisory Committee by voting.



- Report of the Supervisory Committee of the Company for 2018
- Annual Report of the Company for 2018
- Annual Results Announcement of the Company for 2018
- Financial Report of the Company for 2018
- Profit Distribution Plan of the Company for 2018
- Interim Financial Report of the Company for 2019
- Interim Report of the Company for 2019
- Interim Results Announcement of the Company for 2019
- Replacement of self-raised funds which had been invested in advance to the fundraising project with the proceeds from A Shares by the Company
- Use of the proceeds from A Shares to provide entrusted loans to subsidiaries
- Use of temporary idle proceeds from A shares to purchase principal-guaranteed wealth management products
- Third Quarter Report of the Company for 2019

The Supervisors of the Company attended all on-site Board meetings in 2019.

We arrange for Supervisors to receive training on the Company's business and corporate governance and carry out relevant on-site inspections with them from time to time to enable the Supervisors to have a better understanding of our operations and business and better perform their duties as Supervisors.

In 2019, the trainings received and the inspections conducted by the Supervisors of the Company were as follows:

Name	Position	Training received	Inspection conducted
Chen Sui	Non-employee representative Supervisor/Chairman of the second session of the Supervisory Committee	√	—
Yang Lanhe	Non-employee representative Supervisor	√	√
Chen Rongzhen	Non-employee representative Supervisor	√	√
Zhu Hui	Employee representative Supervisor	√	—
Wang Hongxin	Employee representative Supervisor	√	—

## Independent Opinions of the Board of Supervisors on relevant issues

### Lawful Operation

The Company operates in compliance with the law and its substantial decisions are made in compliance with relevant laws and regulations. The internal control system established by the Company meets the demands of management. The Board and the management of the Company are able to operate regularly in strict compliance with the PRC Company Law, the PRC Securities Law, the Articles of Association and relevant regulations of the places where the shares of the Company are listed, performing their duties and responsibilities with integrity and diligence, and carefully implemented resolutions passed and mandates granted at general meetings. The Company's decisions and operating activities were in compliance with the laws and regulations and the Articles of Association. During the reporting period, no violation of the laws, regulations and the Articles of Association committed by the Board and the management of the Company was identified and no harm was inflicted on the interests of the Company.

### Financial Information of the Company

The financial statements of the Company give an objective, true and fair view of the financial position and the operating results of the Company in all material aspects are true and reliable under its regulated financial auditing and sound internal control system.

# Supervisory Committee Report

## Use of Funds Raised by the Company

During the reporting period, after deducting the issuance expenses, the proceeds raised from the A Share IPO of the Company were all used as promised.

## Independent opinions of the Company's internal control system

In accordance with the requirements of the relevant provisions of the Basic Standards of Internal Control for Enterprises 《企業內部控制基本規範》, upon adequate verification of the Company's internal control operation, the Supervisory Committee is of the view that the existing internal control system of the Company has complied with the currently applicable laws, regulations and regulatory requirements, and can exercise effective control over risks in all material respects; and that the Internal Control Assessment Report of the Company for 2019 《公司2019年度內部控制評價報告》 has given an objective and true view of the establishment, operation, inspection and supervision of the internal control system of the Company.

## Profit Distribution Plan

The Supervisory Committee reviewed the "Profit Distribution Plan for 2018" of the Company and considered that the profit distribution plan complied with relevant provisions of laws, regulations and the Articles of Association of the Company, and that the plan was in the interests of the shareholders as a whole, and was conducive to the long-term development of the Company.

The Supervisory Committee of the Company will continue to diligently and duly perform its supervisory duties in strict compliance with the PRC Company Law, the Articles of Association and the State's relevant laws and regulations, so as to enhance the Company's standard operation and safeguard the lawful interests of the Company and its shareholders.

Supervisory Committee  
March 24, 2020



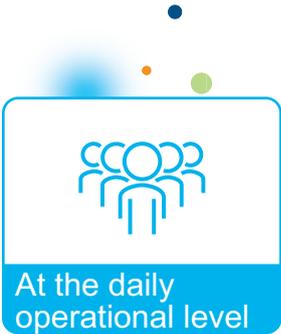
# Risk Management Report

## Philosophy of Risk Management

We focus on the development of strategies and objectives. We face various internal and external risks during the development process of the Company. We need to proactively identify and manage risks to mitigate, avoid, transfer or manage the effects resulting from such risks, while at the same time enhance the effect and efficiency of operation, to create and protect the Company's values. In this respect, the Company has strived to improve its comprehensive risk management structure, strengthening the Company's ability in risk management and nurturing a sound risk management culture. We focus on the identification, analysis, assessment and management of relevant risks to create a safe, healthy, efficient and environment-friendly working environment for employees and contractors, while ensuring the safety and health of the public and minimizing the impacts on environment. Risk management is implemented throughout every aspect of business management and operational process. Every employee of the Company is a safeguard to risk management.



The Company's overall risk management system is supervised by the Board. The Company focuses on the assessment of major risks relating to business development, so as to provide better support for the implementation of corporate strategic planning and business development.



Risk management promotes the full implementation of the Company's policy and procedures and the major measures adopted to achieve management objectives, so as to protect the effectiveness of business management, lower the uncertainties in achieving business objectives, and ensure the Company is in compliance with the related laws and regulations.

# Risk Management Report

## Objectives, Strategies, System and Procedure of Risk Management

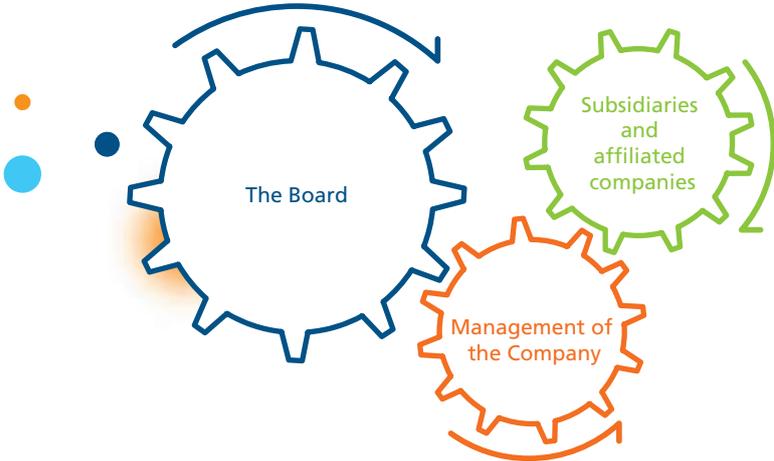
### Objectives and Strategies of Risk Management

The risk tolerance of the Company refers to the level of risk that the Company is willing to undertake in order to achieve its own strategic and business objectives. The Board of the Company is responsible for assessing the risk the Company is willing to tolerate. The assessment is mainly based on the Company's values, goals and resources, and must follow the requirements of the laws and regulations. The reasonable level of risk that is acceptable by the Company must conform to its development strategy and can be fully understood and controlled and will not place the Company under the following risks:



We set up a risk management team to assess risks and rank them on the monthly meeting, while requiring each business unit to identify the consequences and likelihood of risks, set up risk control targets, and take corresponding risk prevention strategies.

# System of Risk Management



**The Company's risk management system:**

- to promote full identification and delivery of risk information to support the Board's access to risk information;
- to ensure the effective operation of the risk management system and clarifying the roles and responsibilities for risk management; and
- the following three different roles and responsibilities are included.

 <b>Decision making and monitoring</b>	<p><b>The Board</b></p> <ul style="list-style-type: none"> <li>• To consider annual risk management report, to supervise, assess and inspect the effectiveness of the operation of the Company's internal overall risk management system;</li> <li>• To monitor the major risks for the year and fulfill the management responsibilities of major risks;</li> <li>• To discuss risk management and internal control system with the management, ensuring that management has fulfilled its obligation on the establishment of effective system;</li> <li>• To study the significant or unusual matters reflected or to be reflected in the Company's report and accounts, and to make adequate reference to matters proposed by the Company's subordinate accounting and finance department, supervision department or auditors; and</li> <li>• To study the important findings of risk management and internal control matters and the relevant measures taken by the management.</li> </ul>	
 <b>Setting goals and solutions</b>	<p><b>Management of the Company</b></p>	<p><b>The President</b></p> <ul style="list-style-type: none"> <li>• To continuously improve the risk management system;</li> <li>• To understand and know the significant risks which the Company faces and their current state, and to approve major risk management solutions of the Company; and</li> <li>• To continuously supervise and evaluate the effectiveness of establishing and operating the Company's comprehensive risk management system.</li> </ul> <p><b>Risk Management Department</b></p> <ul style="list-style-type: none"> <li>• To promote and facilitate the normal operation of the Company's comprehensive risk management and related risk management workflow;</li> <li>• To organize and coordinate the routine work of the comprehensive risk management;</li> <li>• To guide and supervise each unit to carry out comprehensive risk management; and</li> <li>• To prepare the risk monitoring reports, and the quarterly and annual risk assessment reports by the Company.</li> </ul>
 <b>Execution and reporting</b>	<p><b>Other departments and business units of the Company, its subsidiaries and affiliated companies:</b></p> <ul style="list-style-type: none"> <li>• To be responsible for the comprehensive risk management duties within the unit's business operation;</li> <li>• To manage the specific risks of the unit;</li> <li>• To submit the unit's monthly risk monitoring reports and annual risk management reports;</li> <li>• To organize the risk assessment of the unit according to the supervision of the Risk Management Department; and</li> <li>• To organize the investigations, assessments and analyses on the relevant risk incidents before, during and after they take place in the unit respectively.</li> </ul>	

# Risk Management Report

## The Procedure of Risk Management

The Company's risk management procedures:	
<ul style="list-style-type: none"> <li>To incorporate the Company's social responsibility, economic operation and development prospects.</li> <li>To make reference to the risk management contents of IAEA-TECDOC-1209.</li> <li>To make reference to the risk management framework of the Committee of Sponsoring Organizations of the Treadway Commission (COSO).</li> <li>To make continuous improvement to comply with the leading standard and practice in the industry, including ISO 31000:2009 risk management – principles and guidelines.</li> <li>To cultivate sound risk management culture and establish a sound and comprehensive risk management system, by focusing on the overall development and operational objectives and through implementing basic procedures of risk management in all segments of corporate management and in the course of business operation, in order to provide reasonably assured processes and methods for achieving the overall targets of risk management.</li> </ul>	
 <b>Assessment of the Company</b>	<ul style="list-style-type: none"> <li>To identify significant risks which may affect the Company's business development and operation during the Company's annual business planning.</li> <li>To analyse the internal and external situations for the next year by the Risk Management Department through procedures such as collecting, screening and sorting to find out significant risks the Company will face, and incorporate counter-measures against the significant risks identified into the Company's business plans to ensure that appropriate management or monitoring measures will be adopted to avoid the negative effects of material risks on the Company's business development and operation.</li> <li>After being considered at a specific meeting organized by the President, the resulting annual risk management report will be submitted to the Audit and Risk Management Committee and the Board for review.</li> </ul>
 <b>Quarterly risk monitoring</b>	<ul style="list-style-type: none"> <li>To identify significant risks, prepare the quarterly risk monitoring reports and submit to the Board for review.</li> </ul>
 <b>Monthly risk monitoring</b>	<ul style="list-style-type: none"> <li>The major business departments and major business units of the Company will prepare the monthly risk monitoring reports for their own units as the basis for risk information collection.</li> <li>The Risk Management Department will assign the risk management team to assess and rank risks. They will conduct special reports and discussions on the risks that revealed a tendency of negative changes in the previous month, selectively track risks that reveal a tendency of negative changes in the current month, and request the relevant business department or business unit to handle in a timely manner.</li> <li>The Risk Management Department will prepare a monthly risk monitoring report based on pre-screened and sorted risks and the implementation of monitoring objectives, and submit to the President and the Chairman for reporting the risk status of the current month.</li> </ul>
 <b>Risk management during the business development process</b>	<ul style="list-style-type: none"> <li>In the process of the Company's development, when business units conduct major investment, business units must identify significant risks and put forward corresponding counter-measures.</li> </ul>

We will identify new risks through risk information collection from the basic level to the top level in daily risk monitoring, and assign the risk management team to prepare monthly risk monitoring report and identify the ranking changes of major risks, and identify the undiscovered risks that may arise so as to address the impacts of risk changes for the year. Meanwhile, we will understand and discover new risks through various channels during the process of daily business development and operation. We will timely analyze the situation of new risks brought out by external environmental changes, formulate and adopt corresponding measures. The new risks identified in internal operation and external environment which are recognized as significant risks after evaluation and analysis will be listed as key risks under monitoring until such risks are eliminated.

We firmly adhered to the same concept on risk management, continued to improve risk management system by strengthening the active identification, regular assessment and active management of risk events, and setting up a dedicated risk management team to manage risks as well as other effective management measures, facilitated each department of the Company to transit from risk warning to active management of risk, and consolidated the front line of risk management and prevention.

## Key Risk Management Initiatives in 2019

In 2019, the Company actively responded to the internal and external challenges and opportunities. According to the changes of internal and external environment, we analyzed the situations, explored internal drivers, made active response and captured the opportunities to resolve the impact of internal and external uncertainties on the Company's development.

In 2019, we have identified the following major risks in the actual business development and have taken corresponding measures:

Description of risks	Key changes	Key measures
<b>Safe and stable operation of multiple bases</b>		
<p>As new units have continuously been put into commercial operation, simultaneous operation and management of multiple bases have brought us many challenges.</p> <p>As multiple bases and multiple units outages interacted and overlapped, resource coordination and control needs to be strengthened.</p> <p>As part of our nuclear plant units have operated for more than ten years, and it takes some time to inspect the new units, the assurance of reliability of equipment of multiple bases is also an issue we need to focus on.</p>	<p style="text-align: center;"></p> <ul style="list-style-type: none"> <li>In 2019, a total of 24 units are in operation, an increase of two units year-on-year.</li> </ul>	<ul style="list-style-type: none"> <li>Continue to carry out the promotion of the Nuclear Safety Law and refresher education of safety on all staff, and further carry out the "Upholding compliance and fighting against non-compliance" activities.</li> <li>We are committed to cultivating masters in key skill areas, formulating and implementing skill competition programs in various professional fields, and improving staff skills.</li> <li>Strengthen online safety supervision, carry out benchmarking work on management to avoid human error, optimize the management and operation mechanism for significant and major equipment, and strengthen feedback to external experience to improve equipment management, and ensure the safe operation of units in operation.</li> </ul>
<b>Risks of sales of electricity</b>		
<p>The NPPs under our operation and management were affected by the local economic development, local demand for electricity, accelerated power market reform and local power generation policies of the places in which they are located, posing challenges to the nuclear power bases in terms of sales of electricity.</p>	<p style="text-align: center;"></p> <ul style="list-style-type: none"> <li>The changes in trading mechanism of electricity arising from the power market reform influence electricity output and prices.</li> <li>As the increase of electricity demand slowed down, power grids request the units to operate at lower efficiency levels during holidays, the heating provision periods in winter and flood seasons.</li> <li>Government and power grid projects affect power transmission, lowering the efficiency levels of the units.</li> <li>Power grids request the units to operate at lower power levels due to typhoons.</li> </ul>	<ul style="list-style-type: none"> <li>Leveraging the coordination mechanism with regional power stations which assumes responsibilities at different levels, strive to pursue more planned out put.</li> <li>Formulate and implement corresponding solutions to lower and avoid the chances of deloading occurring during holidays.</li> <li>Enhance marketing strength in the power market in each region, so as to obtain a bigger market share.</li> <li>Strengthen communication and coordination with national competent departments, local governments and power grid, actively keep up with the trend of power market reform.</li> </ul>
<p style="text-align: center;"></p> <p>Lower than the risk level of last year</p>	<p style="text-align: center;"> </p> <p>Same as the risk level of last year</p>	<p style="text-align: center;"></p> <p>Higher than the risk level of last year</p>

# Risk Management Report

Description of risks	Key changes	Key measures
<b>Controls on projects under construction</b>		
<p>Safety and quality control, progress control and cost control of nuclear power projects under construction are the challenges faced by us.</p>	 <ul style="list-style-type: none"> <li>We managed five nuclear power units under construction (including one unit which was entrusted to the Company by the controlling shareholder of the Company for management).</li> <li>With strengthened regulation in nuclear safety, environmental protection and other aspects of the government, the challenge of risk management and control in relation to legal compliance will be tougher.</li> </ul>	<ul style="list-style-type: none"> <li>Ensure working progress with quality, formulate special optimization measures and guarantee the project construction targets.</li> <li>Implement investment control objectives of HPR1000 demonstration project, strengthen the design, procurement and construction schedule control of HPR1000 demonstration project.</li> <li>Continue to carry out nuclear safety education, enhance the management on high-risk operations and major sources of danger, conduct comprehensive checks on the list of safety responsibilities and risks, and improve the workers' technical skills and awareness of safety and quality.</li> </ul>
<b>Financial risks</b>		
<p>Exchange rate: As RMB exchange rate fluctuated, the foreign currency debts (mainly denominated in Euro) of the Company affected our expected earnings and cash flow.</p> <p>Debts: The changing credit policies and fluctuating market interest rates affected the debt financing and cost control of the Company.</p>	 <ul style="list-style-type: none"> <li>In 2019, the RMB was slightly appreciated against the Euro, which posed manageable influence to the Company in risk management of foreign currency debts.</li> </ul> <p>In 2019, the market-based reform of interest rate made steady progress, and the local monetary policy in China remained stable with a suitable degree of tightness. As a result of sufficient liquidity level, the Company's financing pressure was relatively low.</p> <ul style="list-style-type: none"> <li>In 2019, gearing ratio of the Company declined. The financial structure was more stable, and the cash and bank credit were well protected.</li> </ul>	<ul style="list-style-type: none"> <li>We adopted measures such as forward transactions, debt swaps and early repayment to reduce exchange rate exposure of foreign currency debts gradually. Meanwhile, the Company managed new foreign currency debt by payments for foreign commercial contracts through spot or forward purchase of foreign exchange in RMB.</li> <li>We meet long-term and stable capital needs of nuclear power project investment through establishment of syndicates and long-term bank loans and set a reasonable loan term and repayment schedule to match the Company's long-term cash flow, and reduce the risk of refinancing. We optimized debt structure and reduced financing cost by measures such as increasing the scale of direct financing, reducing impact of interest rate fluctuation on the Company's operations. Through equity financing, the Company optimized its capital structure and reduced financial risks.</li> </ul>
		

The overall nuclear safety situations are under control according to our inspection on the conditions of nuclear power generating units in operation in 2019 and the overall situations of project quality, progress and construction cost are under control without material and adverse changes according to our inspection on the conditions of projects under construction in 2019. Through reviewing the completion status of power generation plans for 2019 as well as internal and external efforts, the completion rate of the power generation plans was well guaranteed.

## Outlook for 2020 and Important Measures

In 2020, the Company will face more challenges. As China is going through economic transformation, industrial restructuring, and deepening reforms in the power market, it will bring about more uncertainties to sales of electricity of the Company.

The Company will continue to promote risk management optimization actions. Leverage the opportunity of conclusion of the "13th Five-Year" plan and execution of the "14th Five-Year" plan of the Company, and based on the operational objectives and plan for major tasks of 2020, we will identify the risks that affect us in achieving our targets, further enhance the effectiveness of the Company's risk management, strengthen the risk management responsibility, formulate and implement risk prevention and control measures to ensure the Company achieves its development and operational objectives and creates value for the shareholders.

The objectives of the Company's risk management in 2020 are: making every endeavor to mitigate potential safety hazards to safeguard the bottom line of safety and quality, strengthening independent innovation to make breakthroughs in key technologies and capabilities, addressing the shortcomings to achieve stable operation of power generating units and ensuring the steady operation and development of the Company.

We continue to fulfill risk management responsibilities and optimize the risk monitoring methods through internal control functions and business departments and units, so as to reduce the impacts of significant risks on our business development.



### As for safe and stable operation of multiple bases

- ☑ implement the requirements of the Nuclear Safety Law, and continue to facilitate the implementation of actions of nuclear safety independent supervision and improvement plans at the power stations.
- ☑ fully utilize internal and external supervisions and play an independent supervisory role.
- ☑ continuously improve the management and operation mechanism for major equipment to enhance the equipment reliability.
- ☑ introduce an intensive program using new technology to avoid human error at all bases, and push forward "compliance with procedures and combat violations".
- ☑ strengthen the construction of nuclear safety culture, and continue to work on safety standards and international benchmarking so as to enhance the leading status in terms of nuclear safety culture.



### As for risks of sales of electricity

- ☑ actively facilitate the implementation of policies in relation to supporting the consumption of electricity generated by NPPs.
- ☑ actively participate in the power market to increase the on-grid power generation.



### As for controls on projects under construction

- ☑ adhere to the idea of "safety first and quality foremost", continue to carry out safety and quality management and environmental protection activities.
- ☑ enhance construction planning, optimize the outage schedule and avoid hurrying and idleness.
- ☑ reinforce skills training for employees, strengthen the feedback system and continuously enhance the effectiveness of feedback.
- ☑ further enhance design solidification, optimize construction rationale, and prevent claims and delay.

In the face of increasing uncertainties in the business environment, the Company monitor risks continuously and rigorously for the realization of the Company's operational and strategic objectives.

# Financial Report

- 150 Audit Report ○
- 153 Consolidated Balance Sheet ○
- 155 Balance Sheet of the Parent Company ○
- 157 Consolidated Income Statement ○
- 158 Income Statement of Parent Company ○
- 159 Consolidated Cash Flow Statement ○
- 160 Cash Flow Statement of the Parent Company ○
- 161 Consolidated Statement of Changes in Shareholders' Equity ○
- 162 Statement of Changes in Shareholders' Equity of Parent Company ○
- 163 Notes to the Financial Statements ○
- 284 Supplementary Information ○







To the Shareholders of 中國廣核電力股份有限公司CGN Power Co., Ltd.

## I. Audit Opinion

We have audited the financial statements of 中國廣核電力股份有限公司CGN Power Co., Ltd. (“CGN Power”), which comprise the consolidated balance sheet and the balance sheet of the parent company as at December 31, 2019, and the consolidated income statement and the income statement of the parent company, the consolidated cash flow statement and the cash flow statement of the parent company, and the consolidated statement of changes in shareholders’ equity and statement of changes in shareholders’ equity of the parent company for 2019, as well as the notes to the financial statements.

In our opinion, the accompanying financial statements, in all material respects, have been prepared in accordance with the Accounting Standards for Business Enterprises (“ASBE”), and give a fair presentation on CGN Power’s consolidated financial position and the financial position of the parent company as at December 31, 2019, and the consolidated results of operations and cash flows and the results of operations and cash flows of the parent company for 2019.

## II. Basis for Audit Opinion

We conducted our audit in accordance with China Standards on Auditing (“CSA”). Our responsibilities under those standards are further described in the Auditor’s Responsibilities for the Audit of the Financial Statements section of the audit report. We are independent of the Group in accordance with the Code of Ethics for Chinese Certified Public Accountants (the “Code”), and we have fulfilled our other ethical responsibilities in accordance with the Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

## III. Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements for 2019. These matters were addressed in the context of our audit of the consolidated financial statements for 2019 as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. We have determined the matters described below to be key audit matters to be communicated in the audit report.

### 1. Revenue from and Cost of Construction, Installation and Design Services

As stated in Note (V) 47 to the financial statements, the revenue from construction, installation and design services presented in the consolidated financial statements of CGN Power for 2019 was RMB6,163,681,030.01, and the cost of construction, installation and design services was RMB6,144,634,380.26. In accordance with accounting policies, CGN Power determined the performance progress according to the proportion of actual cost in estimated total cost, and recognized contract revenue and costs according to the progress of contract performance. Notwithstanding that the management regularly reviewed and revised the estimates of total contract costs for the construction contracts as the contract progresses, the actual costs may be different from the estimation and this may have financial impacts on profit recognized. We identified recognition of revenue from and cost of construction, installation and design services as a key audit matter in the consolidated financial statements for 2019 due to the significant management judgement and estimation required in the determination of the budgeted contract costs of the projects as well as the completion progress of construction works.

Our main audit procedures in relation to the above key audit matter included:

- Testing operation effectiveness on key internal control over recognition of revenue from and cost of construction, installation and design services;
- Evaluating the appropriateness of the contract budget of the projects estimated and the reasonableness of the revision by (i) discussing with the personnel who prepares the budgets to understand how the project budgets were prepared, and (ii) assessing the reliability of the budget revisions on a sample basis;
- Evaluating the authenticity of the costs incurred during the year by checking the original documents of construction, installation and design services projects, on sample basis; and
- Recalculating revenue from contracts based on recalculation of the percentage of completion on sample basis, and comparing with contract revenue recognized.

### III. Key Audit Matters (Continued)

#### 2. Measurement of Provision for Nuclear Power Plant Decommissioning

As stated in Note (V) 39 to the financial statements, the provision for nuclear power plant decommissioning presented in the consolidated financial statements of CGN Power as at December 31, 2019 was RMB4,415,795,933.61. CGN Power has incurred obligations to handle the decommissioning of its nuclear power plants in accordance with the relevant regulatory requirements in the People's Republic of China (the "PRC"). Management of CGN Power exercised their judgements to determine the timing of decommissioning, the amount of future decommissioning expenditure and discount rate to estimate the costs provision associated with these obligations. The amount of future decommissioning expenditure is estimated by reference to the decommissioning activities and actual cost incurred in shutting down a nuclear facility in other jurisdictions with adjustments for factors such as increase in labour cost, advanced technology, and the most recent developments in relevant laws and regulations. We identified the measurement of provision for nuclear power plant decommissioning as a key audit matter in the consolidated financial statements for 2019 due to the significant management judgement and estimation required in determining the amount of the provision.

Our main audit procedures in relation to the above key audit matter included:

- Reviewing nuclear power plant decommissioning relevant documents and meeting with the experts who prepared and reviewed the nuclear power plant decommissioning model, to obtain an understanding of the management's process in developing the decommissioning plan and to assess their professional competence;
- Evaluating the compliance and feasibility of the decommissioning plans prepared by management by comparing it with the relative state regulations and United States Nuclear Regulatory Commission's decommissioning fees model issued;
- Assessing the reasonableness of methods and assumptions used in the decommissioning fees model based on our knowledge of the business and industry; Comparing difference on major costs and expenses in decommissioning fees models between the PRC and the United States and analyzing the differences in currencies, staff costs, nuclear power technologies for different nuclear power plants and safe disposal fees of radioactive waste to assess the reasonableness of source data and results of the decommissioning fees model;
- Assessing the reasonableness of the discount rates used by the management based on our knowledge of the business and industry with reference to the current market risk-free rate of interest and the industry specific risk factors; and
- Reviewing the sensitivity analysis on the key factors in decommissioning fees model performed by CGN Power, and evaluating the appropriateness of key assumptions used by the management.

### IV. Other Information

The management of CGN Power is responsible for the other information. The other information comprises the information included in the 2019 Annual Report of CGN Power, but does not include the financial statements and our audit report thereon.

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

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

### V. Responsibilities of Management and Those Charged with Governance for the Financial Statements

The management of CGN Power is responsible for the preparation of the financial statements that give a fair view in accordance with ASBE, and the design, implementation and maintenance of internal control that is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

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

Those charged with governance are responsible for overseeing CGN Power's financial reporting process.

# Audit Report

## VI. Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an audit report that includes our audit opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with CSA will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with CSA, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- (1) Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our audit opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- (2) Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances.
- (3) Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the management.
- (4) Conclude on the appropriateness of the management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on CGN Power's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the audit report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of the audit report. However, future events or conditions may cause CGN Power to cease to continue as a going concern.
- (5) Evaluate the overall presentation (including the disclosures), structure and content of the financial statements, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- (6) Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within CGN Power to express an audit opinion on the financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

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

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the financial statements for 2019 and are therefore the key audit matters. We describe these matters in the audit report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in the audit report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Deloitte Touche Tohmatsu Certified  
Public Accountants LLP  
Shanghai, China

Chinese Certified Public Accountants  
(The engagement partner)  
Yang Yumin

Chinese Certified Public Accountants  
Zhang Yehua

March 25, 2020

# Consolidated Balance Sheet

As at December 31, 2019

Unit: RMB

Item	NOTES	December 31, 2019	December 31, 2018 (Restated)
<b>Assets</b>			
<b>Current Assets:</b>			
Cash at bank and in hand	(V)1	19,571,648,773.58	15,596,386,387.95
Derivative financial assets	(V)2	3,149,401.93	4,753,642.10
Bills receivable	(V)3	669,170,265.04	18,433,532.76
Accounts receivable	(V)4	7,483,893,725.25	6,630,947,443.89
Prepayments	(V)5	9,197,503,376.81	5,128,948,753.87
Other receivables	(V)6	147,196,275.50	519,127,589.11
Inventories	(V)7	18,370,637,240.89	21,372,255,356.38
Contract assets	(V)8	3,421,177,653.57	3,409,787,026.47
Non-current assets due within one year	(V)9	245,345.98	3,659,033.86
Other current assets	(V)10	3,058,761,231.75	2,703,617,527.46
<b>Total current assets</b>		<b>61,923,383,290.30</b>	<b>55,387,916,293.85</b>
<b>Non-current assets:</b>			
Long-term equity investments	(V)11	11,199,291,810.53	10,203,023,176.92
Other investment in equity instruments	(V)12	391,155,000.00	422,689,500.00
Other non-current financial assets	(V)13	–	812,257.18
Investment properties	(V)14	183,747,207.19	210,346,041.36
Fixed assets	(V)15	256,954,693,283.42	210,850,206,582.15
Construction in progress	(V)16	39,240,570,013.29	74,624,722,113.05
Right-of-use assets	(V)17	1,045,156,326.10	/
Intangible assets	(V)18	4,937,028,458.97	4,719,796,447.25
Development costs	(V)19	2,274,225,675.05	1,962,455,756.90
Goodwill	(V)20	419,242,673.32	419,242,673.32
Long-term deferred expenses	(V)21	1,473,427,773.32	1,734,658,492.05
Deferred tax assets	(V)22	1,904,063,349.16	1,774,868,398.17
Other non-current assets	(V)23	6,029,249,666.14	6,244,932,628.08
<b>Total non-current assets</b>		<b>326,051,851,236.49</b>	<b>313,167,754,066.43</b>
<b>Total assets</b>		<b>387,975,234,526.79</b>	<b>368,555,670,360.28</b>

The notes form an integral part of these financial statements.

The financial statements from 153 to 284 were signed by the following responsible persons:

**Gao Ligang (Acting)**  
Legal Representative(Director)

**Shi Bing**  
Director

**Yin Engang**  
Chief Financial Officer

**Cheng Chao**  
Head of the Accounting Department

# Consolidated Balance Sheet

As at December 31, 2019

Unit: RMB

Item	NOTES	December 31, 2019	December 31, 2018 (Restated)
<b>Liabilities and shareholders' equity</b>			
<b>Current liabilities:</b>			
Short-term loans	(V)24	14,263,273,458.48	16,366,742,257.35
Derivative financial liabilities	(V)25	–	2,724,971.67
Bills payable	(V)26	2,618,383,795.01	2,260,164,887.24
Accounts payable	(V)27	19,983,479,765.09	15,986,899,682.85
Receipts in advance	(V)28	40,000.00	2,058,361.07
Contract liabilities	(V)29	1,543,242,352.55	835,799,748.43
Employee benefits payable	(V)30	51,046,738.75	42,616,433.80
Taxes payable	(V)31	1,456,753,322.33	1,431,294,200.96
Other payables	(V)32	3,817,756,635.31	3,878,479,167.43
Non-current liabilities due within one year	(V)33	22,747,589,472.72	18,853,766,355.93
Other current liabilities	(V)34	536,334,171.47	964,545,364.41
<b>Total current liabilities</b>		<b>67,017,899,711.71</b>	<b>60,625,091,431.14</b>
<b>Non-current liabilities:</b>			
Long-term loans	(V)35	167,859,812,159.47	179,639,946,139.80
Bonds payable	(V)36	8,987,133,846.98	8,488,044,399.25
Including: Preference shares		–	–
Perpetual bonds		–	–
Lease liabilities	(V)37	695,555,684.54	/
Long-term employee benefits payable	(V)38	119,769,817.00	102,267,273.40
Provisions	(V)39	4,910,629,589.95	4,001,531,754.01
Deferred income	(V)40	1,873,337,839.76	1,395,854,838.75
Deferred tax liabilities	(V)22	1,217,228,385.92	1,177,284,416.72
<b>Total non-current liabilities</b>		<b>185,663,467,323.62</b>	<b>194,804,928,821.93</b>
<b>Total liabilities</b>		<b>252,681,367,035.33</b>	<b>255,430,020,253.07</b>
<b>Shareholders' equity:</b>			
Share capital	(V)41	50,498,611,100.00	45,448,750,000.00
Capital reserve	(V)42	10,702,322,842.13	3,350,519,181.82
Other comprehensive income	(V)43	766,584,661.43	699,854,140.51
Specific reserve	(V)44	222,401,570.36	197,139,693.40
Surplus reserve	(V)45	3,944,339,314.63	3,341,495,665.44
Retained earnings	(V)46	23,667,716,575.70	18,077,156,831.53
<b>Total equity attributable to shareholders of the parent company</b>		<b>89,801,976,064.25</b>	<b>71,114,915,512.70</b>
Non-controlling interests		45,491,891,427.21	42,010,734,594.51
<b>Total shareholders' equity</b>		<b>135,293,867,491.46</b>	<b>113,125,650,107.21</b>
<b>Total liabilities and shareholders' equity</b>		<b>387,975,234,526.79</b>	<b>368,555,670,360.28</b>

# Balance Sheet of the Parent Company

As at December 31, 2019

Unit: RMB

Item	NOTES	December 31, 2019	December 31, 2018 (Restated)
<b>Assets</b>			
<b>Current Assets:</b>			
Cash at bank and in hand		14,073,628,934.52	9,741,247,550.24
Accounts receivable	(XV)1	757,297,090.35	691,807,188.60
Prepayments		10,406,259.02	12,051,211.58
Other receivables	(XV)2	4,584,463,468.61	1,234,738,858.24
Non-current assets due within one year		23,071,686.99	4,000,000,000.00
Other current assets	(XV)3	7,018,052,484.21	5,904,124,692.57
<b>Total current assets</b>		<b>26,466,919,923.70</b>	<b>21,583,969,501.23</b>
<b>Non-current assets:</b>			
Debt investments	(XV)4	19,652,463,326.36	6,088,000,000.00
Long-term equity investments	(XV)5	79,504,364,191.26	78,003,718,957.43
Fixed assets		47,102,884.34	37,287,554.98
Construction in progress		49,234,926.69	60,323,650.73
Right-of-use assets		114,450,985.40	/
Intangible assets		280,228,630.10	240,506,543.32
Development costs		1,233,559,396.01	773,743,861.01
Other non-current assets		38,869,959.23	39,060,484.23
<b>Total non-current assets</b>		<b>100,920,274,299.39</b>	<b>85,242,641,051.70</b>
<b>Total assets</b>		<b>127,387,194,223.09</b>	<b>106,826,610,552.93</b>
<b>Liabilities and shareholders' equity</b>			
<b>Current liabilities:</b>			
Short-term loans	(XV)6	11,801,919,932.29	9,612,506,721.28
Accounts payable		409,230,510.31	429,277,843.18
Contract liabilities		14,058,385.08	4,384,800.02
Employee benefits payable		10,641,945.29	2,544,490.66
Taxes payable		6,909,776.52	5,322,716.15
Other payables		75,805,163.38	41,028,621.80
Non-current liabilities due within one year		2,811,410,041.18	165,565,753.43
<b>Total current liabilities</b>		<b>15,129,975,754.05</b>	<b>10,260,630,946.52</b>

# Balance Sheet of the Parent Company

As at December 31, 2019

Unit: RMB

Item	NOTES	December 31, 2019	December 31, 2018 (Restated)
<b>Non-current liabilities:</b>			
Bonds payable	(XV)7	8,987,133,846.98	8,488,044,399.25
Including: Preference shares		–	–
Perpetual bonds		–	–
Lease liabilities		45,491,994.88	/
Long-term employee benefits payable		8,598,229.34	8,355,898.21
Deferred income		500,000.00	–
<b>Total non-current liabilities</b>		<b>9,041,724,071.20</b>	<b>8,496,400,297.46</b>
<b>Total liabilities</b>		<b>24,171,699,825.25</b>	<b>18,757,031,243.98</b>
<b>Shareholders' equity:</b>			
Share capital		50,498,611,100.00	45,448,750,000.00
Capital reserve		31,781,612,580.88	24,441,698,121.44
Surplus reserve		3,532,647,874.53	2,929,804,225.34
Retained earnings		17,402,622,842.43	15,249,326,962.17
<b>Total shareholders' equity</b>		<b>103,215,494,397.84</b>	<b>88,069,579,308.95</b>
<b>Total liabilities and shareholders' equity</b>		<b>127,387,194,223.09</b>	<b>106,826,610,552.93</b>

The notes form an integral part of these financial statements.

# Consolidated Income Statement

For the year ended December 31, 2019

Unit: RMB

Item	NOTES	2019	2018 (Restated)
I. Operating revenue	(V)47	60,875,176,254.90	50,827,919,184.43
Less: Operating costs	(V)47	35,471,460,119.46	28,503,854,609.56
Tax surcharge	(V)48	699,868,278.64	632,770,128.93
Selling expenses	(V)49	78,997,912.92	102,120,591.17
Administrative expenses	(V)50	2,579,433,181.20	2,362,898,123.90
Research and development expenses	(V)51	1,483,443,965.15	1,019,825,909.61
Finance costs	(V)52	7,697,736,375.83	6,000,868,773.69
Including: Interest expenses		7,996,857,031.69	6,141,359,054.43
Interest income		339,092,835.28	254,816,814.36
Add: Other gains	(V)53	2,405,291,535.32	1,563,140,899.78
Investment income	(V)54	1,307,058,211.00	1,044,558,662.97
Including: In come from investment in associates and joint ventures		1,096,412,691.22	1,029,509,833.39
Gain on derecognition of financial assets measured at amortized cost		–	–
Gains from changes in fair value	(V)55	4,470,971.69	16,076,115.36
Impairment gains (losses), net of reversal	(V)56	36,863,278.74	223,491,277.23
Asset impairment gains (losses)	(V)57	(30,151,843.83)	(107,189,032.49)
Gains (losses) from disposal of assets	(V)58	(157,727.76)	106,649.90
II. Operating profit		16,587,610,846.86	14,945,765,620.32
Add: Non-operating income	(V)59	18,329,088.25	7,639,433.82
Less: Non-operating expenses	(V)60	50,844,819.09	53,929,295.75
III. Total profit		16,555,095,116.02	14,899,475,758.39
Less: Income tax expenses	(V)61	1,769,854,993.38	1,217,798,428.26
IV. Net profit		14,785,240,122.64	13,681,677,330.13
(I) Classified by continuity of operations			
1. Net profit from continuing operations		14,785,240,122.64	13,681,677,330.13
2. Net profit from discontinued operations		–	–
(II) Classified by ownership			
1. Net profit attributable to shareholders of the parent company		9,465,700,355.79	8,702,632,650.82
2. Non-controlling interests		5,319,539,766.85	4,979,044,679.31
V. Other comprehensive income, net of tax	(V)63	97,934,302.89	225,716,697.62
Other comprehensive income attributable to shareholders of the parent company, net of tax		66,730,520.92	154,367,152.58
(I) Other comprehensive income that will not be reclassified to profit or loss		(26,794,950.00)	(58,991,366.47)
1. Change arising from remeasurement of defined benefit plan		9,375.00	(880,250.00)
2. Other comprehensive income that cannot be transferred to profit or loss under the equity method		–	66,639,133.53
3. Change in fair value of investment in other equity instruments		(26,804,325.00)	(124,750,250.00)
(II) Other comprehensive income that may be reclassified to profit or loss		93,525,470.92	213,358,519.05
1. Other comprehensive income that can be transferred to profit or loss under the equity method		–	(788,366.06)
2. Translation differences arising from translation of foreign currency financial statements		93,525,470.92	214,146,885.11
Other comprehensive income attributable to non-controlling interests, net of tax		31,203,781.97	71,349,545.04
VI. Total comprehensive income		14,883,174,425.53	13,907,394,027.75
Total comprehensive income attributable to shareholders of the parent company		9,532,430,876.71	8,856,999,803.40
Total comprehensive income attributable to non-controlling interests		5,350,743,548.82	5,050,394,224.35
VII. Earnings per share			
(I) Basic earnings per share		0.201	0.191
(II) Diluted earnings per share		0.201	0.191

The notes form an integral part of these financial statements.

# Income Statement of Parent Company

For the year ended December 31, 2019

Unit: RMB

Item	NOTES	2019	2018
I. Operating revenue	(XV)8	645,233,705.37	572,320,051.24
Less: Operating costs	(XV)8	632,109,569.36	636,255,717.03
Taxes and surcharges		336,016.51	541,186.00
Administrative expenses		438,050,917.14	424,014,601.48
Research and development expenses		208,784,918.29	45,098,311.91
Finance costs		409,432,302.21	299,208,278.34
Including: Interest expenses		602,939,322.18	462,810,657.80
Interest income		194,182,967.23	130,221,772.67
Add: Other gains		5,080,476.26	1,701,951.36
Investment income	(XV)9	7,042,215,010.18	6,949,613,442.53
Including: Income from investment in associates and joint ventures		297,741,058.83	301,823,485.66
Gain on derecognition of financial assets measured at amortized cost		-	-
Gains (losses) from changes in fair value		876,927.32	3,149,636.77
Impairment gains (losses), net of reversal		24,281,222.98	(24,042,004.48)
Asset impairment gains (losses)		-	-
II. Operating profit		6,028,973,618.60	6,097,624,982.66
Add: Non-operating income		30,003.08	10,001.10
Less: Non-operating expenses		567,129.80	3,726,354.32
III. Total profit		6,028,436,491.88	6,093,908,629.44
Less: Income tax expenses		-	-
IV. Net profit		6,028,436,491.88	6,093,908,629.44
(I) Net profit from continuing operations		6,028,436,491.88	6,093,908,629.44
(II) Net profit from discontinued operations		-	-
V. Other comprehensive income, net of tax		-	66,639,133.53
(I) Other comprehensive income that will not be reclassified to profit or loss		-	66,639,133.53
1. Other comprehensive income that cannot be transferred to profit or loss under the equity method		-	66,639,133.53
(II) Other comprehensive income that may be reclassified to profit or loss		-	-
VI. Total comprehensive income		6,028,436,491.88	6,160,547,762.97

The notes form an integral part of these financial statements.

# Consolidated Cash Flow Statement

For the year ended December 31, 2019

Unit: RMB

Item	NOTES	2019	2018
<b>I. Cash flows from operating activities:</b>			
Cash received from the sales of goods and rendering of services		67,699,574,315.03	59,218,814,432.32
Tax rebate received		2,297,733,380.74	1,408,739,578.92
Other cash received relating to operating activities	(V)64(1)	3,147,975,955.57	2,125,714,563.07
Sub-total of cash inflow from operating activities		73,145,283,651.34	62,753,268,574.31
Cash payments for goods purchased and services received		25,019,822,642.78	20,571,261,181.49
Cash payments to and on behalf of employees		7,632,773,072.30	6,101,472,089.41
Payments of various types of taxes		6,615,905,564.63	5,317,274,643.99
Other cash payments relating to operating activities	(V)64(2)	3,277,883,424.18	2,353,690,084.13
Sub-total of cash outflow from operating activities		42,546,384,703.89	34,343,697,999.02
Net cash flows from operating activities	(V)65(1)	30,598,898,947.45	28,409,570,575.29
<b>II. Cash flows from investing activities:</b>			
Cash received from disposal of investments		8,016,228,478.58	–
Cash received from investment income		1,487,752,355.28	472,826,303.82
Net cash received from disposal of fixed assets, intangible assets and other long-term assets		757,806.01	3,300,051.20
Net cash received from disposal of subsidiaries and other business entities	(V)65(2)	708,306,825.20	–
Other cash received relating to investing activities	(V)64(3)	4,751,689,613.99	2,648,093,810.86
Sub-total of cash inflow from investing activities		14,964,735,079.06	3,124,220,165.88
Cash paid to purchase and construct fixed assets, intangible assets and other long-term assets		15,653,279,873.91	16,630,592,555.53
Cash paid for investments		8,730,547,188.28	554,696,300.00
Net cash paid for acquisition of subsidiaries and other business		–	235,016,511.04
Other cash paid relating to investing activities	(V)64(4)	5,217,746,270.62	2,085,959,934.25
Sub-total of cash outflow from investing activities		29,601,573,332.81	19,506,265,300.82
Net cash flow from investing activities		(14,636,838,253.75)	(16,382,045,134.94)
<b>III. Cash flows from financing activities:</b>			
Cash receipts from capital contributions		13,781,628,640.20	3,133,527,632.00
Including: Cash receipts from capital contributions by minority shareholders of subsidiaries		1,370,938,505.01	3,133,527,632.00
Cash received from borrowings		51,981,695,102.25	46,403,674,935.17
Other cash received relating to financing activities	(V)64(5)	1,315,504,579.36	577,200,000.00
Sub-total of cash inflow from financing activities		67,078,828,321.81	50,114,402,567.17
Cash repayments of borrowings		61,612,955,890.89	44,519,343,830.91
Cash payments for distribution of dividends or profits or settlement of interest expenses		17,475,749,937.72	16,134,792,807.96
Including: Payments for distribution of dividends or profits to minority shareholders of subsidiaries		4,204,650,035.73	2,907,150,095.68
Other cash payments relating to financing activities	(V)64(6)	813,429,427.43	370,289,616.37
Sub-total of cash outflow from financing activities		79,902,135,256.04	61,024,426,255.24
Net cash flow from financing activities		(12,823,306,934.23)	(10,910,023,688.07)
<b>IV. Effect of foreign exchange rate changes on cash and cash equivalents</b>			
		77,645,014.26	167,756,862.76
<b>V. Net increase in cash and cash equivalents</b>			
		3,216,398,773.73	1,285,258,615.04
Add: Opening balance of cash and cash equivalents	(V)65(3)	11,637,718,842.72	10,352,460,227.68
VI. Closing balance of cash and cash equivalents	(V)65(3)	14,854,117,616.45	11,637,718,842.72

The notes form an integral part of these financial statements.

# Cash Flow Statement of the Parent Company

For the year ended December 31, 2019

Unit: RMB

Item	NOTES	2019	2018
I. Cash flows from operating activities:			
Cash received from the sales of goods and rendering of services		627,486,959.56	591,149,627.36
Other cash received relating to operating activities		197,914,164.68	127,241,836.39
Sub-total of cash inflow from operating activities		825,401,124.24	718,391,463.75
Cash payments for goods purchased and services received		479,004,636.75	316,890,402.41
Cash payments to and on behalf of employees		432,034,549.28	365,510,772.59
Payments of various types of taxes		336,016.50	541,186.00
Other cash payments relating to operating activities		293,468,071.61	327,014,932.34
Sub-total of cash outflow from operating activities		1,204,843,274.14	1,009,957,293.34
Net cash flows from operating activities	(XV)10	(379,442,149.90)	(291,565,829.59)
II. Cash flows from investing activities:			
Cash received from disposal of investments		20,017,359,863.08	6,148,000,000.00
Cash received from investment income		3,512,490,868.23	8,018,406,999.18
Other cash received relating to investing activities		2,050,000,000.00	701,884,560.00
Sub-total of cash inflow from investing activities		25,579,850,731.31	14,868,291,559.18
Cash paid to purchase and construct fixed assets, intangible assets and other long-term assets		625,252,263.49	587,278,633.01
Cash paid for investments		31,912,367,721.36	12,476,001,368.00
Net cash paid for acquisition of subsidiaries and other business		-	235,016,511.04
Other cash paid relating to investing activities		3,503,209,010.38	1,554,177,305.84
Sub-total of cash outflow from investing activities		36,040,828,995.23	14,852,473,817.89
Net cash flow from investing activities		(10,460,978,263.92)	15,817,741.29
III. Cash flows from financing activities:			
Cash receipts from capital contributions		12,410,690,135.19	-
Cash received from borrowings		8,448,458,348.50	7,685,280,269.77
Sub-total of cash inflow from financing activities		20,859,148,483.69	7,685,280,269.77
Cash repayments of borrowings		3,267,589,385.68	2,906,885,378.60
Cash payments for distribution of dividends or profits or settlement of interest expenses		3,800,854,123.07	3,473,289,631.17
Other cash payments relating to financing activities		100,721,565.70	995,150.00
Sub-total of cash outflow from financing activities		7,169,165,074.45	6,381,170,159.77
Net cash flow from financing activities		13,689,983,409.24	1,304,110,110.00
IV. Effect of foreign exchange rate changes on cash and cash equivalents		15,640,263.86	50,430,820.98
V. Net increase in cash and cash equivalents		2,865,203,259.28	1,078,792,842.68
Add: Opening balance of cash and cash equivalents	(XV)10	8,180,127,897.47	7,101,335,054.79
VI. Closing balance of cash and cash equivalents	(XV)10	11,045,331,156.75	8,180,127,897.47

The notes form an integral part of these financial statements.

# Consolidated Statement of Changes in Shareholders' Equity

For the year ended December 31, 2019

Unit: RMB

Item	2019							Total shareholders' equity
	Attributable to shareholders of the Parent Company							
	Share capital	Capital reserve	Other comprehensive income	Specific reserve	Surplus reserve	Retained Earnings	Non-controlling interest	
I. Balance at December 31, 2018	45,448,750,000.00	3,350,519,181.82	699,854,140.51	197,139,693.40	3,341,495,665.44	18,077,156,831.53	42,010,734,594.51	113,125,650,107.21
II. Balance at January 1, 2019	45,448,750,000.00	3,350,519,181.82	699,854,140.51	197,139,693.40	3,341,495,665.44	18,077,156,831.53	42,010,734,594.51	113,125,650,107.21
III. Changes in the current year	5,049,861,100.00	7,351,803,660.31	66,730,520.92	25,261,876.96	602,843,649.19	5,590,559,744.17	3,481,156,832.70	22,168,217,384.25
(I) Total comprehensive income	-	-	66,730,520.92	-	-	9,465,700,355.79	5,350,743,548.82	14,883,174,425.53
(II) Shareholders' contributions and reduction in capital	5,049,861,100.00	7,351,803,660.31	-	-	-	-	1,370,938,505.01	13,772,603,265.32
1. Contributions in ordinary shares from shareholders	5,049,861,100.00	7,339,914,459.44	-	-	-	-	1,370,938,505.01	13,760,714,064.45
2. Others	-	11,889,200.87	-	-	-	-	-	11,889,200.87
(III) Profit distribution	-	-	-	-	602,843,649.19	(3,875,140,611.62)	(3,240,525,221.13)	(6,512,822,183.56)
1. Transfer to surplus reserve	-	-	-	-	602,843,649.19	(602,843,649.19)	-	-
2. Distribution to shareholders	-	-	-	-	-	(3,272,296,962.43)	(3,240,525,221.13)	(6,512,822,183.56)
(IV) Specific reserve	-	-	-	25,261,876.96	-	-	-	25,261,876.96
1. Transfer to specific reserve in the year	-	-	-	119,147,425.34	-	-	-	119,147,425.34
2. Amount utilized in the year	-	-	-	(93,885,548.38)	-	-	-	(93,885,548.38)
IV. Balance at December 31, 2019	50,498,611,100.00	10,702,322,842.13	766,584,661.43	222,401,570.36	3,944,339,314.63	23,667,716,575.70	45,491,891,427.21	135,293,867,491.46

Unit: RMB

Item	2018							Total shareholders' equity
	Attributable to shareholders of the Parent Company							
	Share capital	Capital reserve	Other comprehensive income	Specific reserve	Surplus reserve	Retained Earnings	Non-controlling interest	
I. Balance at December 31, 2017	45,448,750,000.00	3,084,215,773.99	403,233,865.89	131,413,773.45	2,712,118,338.94	13,139,256,274.10	36,107,886,568.35	101,026,874,594.72
Add: Changes in accounting policies	-	-	340,031,798.65	-	-	57,900,771.93	-	397,932,570.58
Business combination under common control	-	230,000,000.00	-	-	317,537.01	(859,816.88)	-	229,457,720.13
Others	-	-	-	-	(108,941.11)	(299,866,423.47)	(57,146,727.96)	(357,122,092.54)
II. Balance at January 1, 2018	45,448,750,000.00	3,314,215,773.99	743,265,664.54	131,413,773.45	2,712,326,934.84	12,896,430,805.68	36,050,739,840.39	101,297,142,792.89
III. Changes in the current year	-	36,303,407.83	(43,411,524.03)	65,725,919.95	629,168,730.60	5,180,726,025.85	5,959,994,754.12	11,828,507,314.32
(I) Total comprehensive income	-	-	154,367,152.58	-	-	8,702,632,650.82	5,050,394,224.35	13,907,394,027.75
(II) Shareholders' contributions and reduction in capital	-	36,303,407.83	-	-	-	-	2,773,704,572.01	2,810,007,979.84
1. Contributions in ordinary shares from shareholders	-	-	-	-	-	-	93,586,930.41	93,586,930.41
2. Business combination under common control	-	(235,016,511.04)	-	-	-	-	-	(235,016,511.04)
3. Others	-	271,319,918.87	-	-	-	-	2,680,117,641.60	2,951,437,560.47
(III) Profit distribution	-	-	-	-	609,390,862.94	(3,699,907,433.92)	(1,864,104,042.24)	(4,954,620,613.22)
1. Transfer to surplus reserve	-	-	-	-	609,390,862.94	(609,390,862.94)	-	-
2. Distribution to shareholders	-	-	-	-	-	(3,090,516,570.98)	(1,864,104,042.24)	(4,954,620,613.22)
(IV) Transfer of shareholders' equity	-	-	(197,778,676.61)	-	19,777,867.66	178,000,808.95	-	-
1. Other comprehensive income transferred to retained profits	-	-	(197,778,676.61)	-	19,777,867.66	178,000,808.95	-	-
(V) Specific reserve	-	-	-	65,725,919.95	-	-	-	65,725,919.95
1. Transfer to specific reserve in the year	-	-	-	217,848,331.82	-	-	-	217,848,331.82
2. Amount utilized in the year	-	-	-	(152,122,411.87)	-	-	-	(152,122,411.87)
IV. Balance at December 31, 2018	45,448,750,000.00	3,350,519,181.82	699,854,140.51	197,139,693.40	3,341,495,665.44	18,077,156,831.53	42,010,734,594.51	113,125,650,107.21

The notes form an integral part of these financial statements.

# Statement of Changes in Shareholders' Equity of Parent Company

For the year ended December 31, 2019

Unit: RMB

Item	2019					Total shareholders' equity
	Share capital	Capital reserve	Other comprehensive income	Surplus reserve	Retained earnings	
I. Balance at December 31, 2018	45,448,750,000.00	24,441,698,121.44	-	2,929,804,225.34	15,249,326,962.17	88,069,579,308.95
II. Balance at January 1, 2019	45,448,750,000.00	24,441,698,121.44	-	2,929,804,225.34	15,249,326,962.17	88,069,579,308.95
III. Changes in the current year	5,049,861,100.00	7,339,914,459.44	-	602,843,649.19	2,153,295,880.26	15,145,915,088.89
(I) Total comprehensive income	-	-	-	-	6,028,436,491.88	6,028,436,491.88
(II) Shareholders' contributions and reduction in capital	5,049,861,100.00	7,339,914,459.44	-	-	-	12,389,775,559.44
1. Contributions in ordinary shares from shareholders	5,049,861,100.00	7,339,914,459.44	-	-	-	12,389,775,559.44
(III) Profit distribution	-	-	-	602,843,649.19	(3,875,140,611.62)	(3,272,296,962.43)
1. Transfer to surplus reserve	-	-	-	602,843,649.19	(602,843,649.19)	-
2. Distribution to shareholders	-	-	-	-	(3,272,296,962.43)	(3,272,296,962.43)
(IV) Transfer of shareholders' equity	-	-	-	-	-	-
1. Other comprehensive income transferred to retained profits	-	-	-	-	-	-
IV. Balance at December 31, 2019	50,498,611,100.00	31,781,612,580.88	-	3,532,647,874.53	17,402,622,842.43	103,215,494,397.84

Unit: RMB

Item	2018					Total shareholders' equity
	Share capital	Capital reserve	Other comprehensive income	Surplus reserve	Retained earnings	
I. Balance at December 31, 2017	45,448,750,000.00	24,441,727,207.50	-	2,300,744,435.85	12,678,305,427.76	84,869,527,071.11
Add: Changes in accounting policies	-	-	131,139,543.08	-	-	131,139,543.08
Others	-	-	-	(108,941.11)	(980,470.06)	(1,089,411.17)
II. Balance at January 1, 2018	45,448,750,000.00	24,441,727,207.50	131,139,543.08	2,300,635,494.74	12,677,324,957.70	84,999,577,203.02
III. Changes in the current period	-	(29,086.06)	(131,139,543.08)	629,168,730.60	2,572,002,004.47	3,070,002,105.93
(I) Total comprehensive income	-	-	66,639,133.53	-	6,093,908,629.44	6,160,547,762.97
(II) Shareholders' contributions and reduction in capital	-	(29,086.06)	-	-	-	(29,086.06)
1. Business combination under common control	-	(29,086.06)	-	-	-	(29,086.06)
(III) Profit distribution	-	-	-	609,390,862.94	(3,699,907,433.92)	(3,090,516,570.98)
1. Transfer to surplus reserve	-	-	-	609,390,862.94	(609,390,862.94)	-
2. Distribution to shareholders	-	-	-	-	(3,090,516,570.98)	(3,090,516,570.98)
(IV) Transfer of shareholders' equity	-	-	(197,778,676.61)	19,777,867.66	178,000,808.95	-
1. Other comprehensive income transferred to retained profits	-	-	(197,778,676.61)	19,777,867.66	178,000,808.95	-
IV. Balance at December 31, 2018	45,448,750,000.00	24,441,698,121.44	-	2,929,804,225.34	15,249,326,962.17	88,069,579,308.95

The notes form an integral part of these financial statements.

# Notes to the Financial Statements

For the year ended December 31, 2019

## (I) COMPANY OVERVIEW

CGN Power Co., Ltd. (the "Company") is a joint stock company jointly established by 中國廣核集團有限公司China General Nuclear Power Corporation ("CGNPC"), as the main promoter by way of contribution with equity of 11 companies involved in the development, investment, operation and research and development of nuclear power plants as well as certain assets and liabilities in respect of the above businesses (the "Business Contribution"), together with other promoters by way of cash contribution in accordance with relevant provisions under PRC laws and administrative regulations, with approvals from the State-Owned Assets Supervision and Administration Commission of the State Council (the "SASAC") through the Reply on the Matters Related to the Main Business Restructuring and Listing of China General Nuclear Power Corporation (Guo Zi Gai Ge [2013] No. 1005) (國資改革[2013]1005號《關於中國廣核集團有限公司核電主業改制並上市有關事項的批覆》) dated December 4, 2013 and the Reply on the Establishment of CGN Power Co., Ltd. (Guo Zi Gai Ge [2014] No. 123) (國資改革[2014]123號《關於設立中國廣核電力股份有限公司的批覆》) dated March 14, 2014. The Company was incorporated in Shenzhen, Guangdong Province on March 25, 2014, and obtained the business license (No. 440301109037551) issued by the State Administration of Industry and Commerce.

Upon establishment, the Company's total share capital was RMB35,300,000,000.00, which was valued by 北京中企華資產評估有限公司(Beijing China Enterprise Appraisals Co., Ltd.), with final approval by the SASAC through the Reply on the Approval of the Asset Valuation Results to the Main Business Restructuring and Listing Project of China General Nuclear Power Corporation (Guo Zi Chan Quan [2014] No. 108) (《關於中國廣核集團有限公司核電主業改制並上市項目資產評估結果核准的批覆》(國資產權[2014]108號)). CGNPC contributed RMB43,017,097,508.00, including valuation of the Business Contribution at RMB40,425,171,692.47 and cash contribution of RMB2,591,925,815.53, translating into 30,040,300,000 shares of the Company at a ratio of 69.83%, representing 85.10% of the total shares; Guangdong Hengjian Investment Holding Co., Ltd. contributed RMB5,054,888,074.00, translating into 3,530,000,000 at a ratio of 69.83%, representing 10.00% of the total shares; and China National Nuclear Corporation (formally 中國核工業集團公司China National Nuclear Corporation) ("CNNC") contributed RMB2,476,895,156.00, translating into 1,729,700,000 at a ratio of 69.83%, representing 4.90% of the total shares.

As approved by the Reply on the Approval to Issue Overseas Listed Foreign Share of CGN Power Co., Ltd. (Zheng Jian Xu Ke [2014] No. 1165) (《關於核准中國廣核電力股份有限公司發行境外上市外資股的批覆》(證監許可[2014]1165號)) issued by China Securities Regulatory Commission on November 3, 2014, and the Letter of Consent for Listing issued by the Stock Exchange of Hong Kong Limited on December 9, 2014, the Company publicly issued overseas listed foreign shares (H shares) in December 2014 and was listed on the Main Board of the Stock Exchange of Hong Kong Limited, with an initial offering size of 8,825,000,000 overseas listed foreign shares (H shares), and 1,323,750,000 shares issued and allotted due to the exercise of over-allotment option with a nominal value of RMB1.00 per share and an issuance price of HK\$2.78 per share. Under the PRC regulations related to the disposal of state-owned shares, CGNPC, Guangdong Hengjian Investment Holding Co., Ltd. and CNNC are required to transfer the amount of domestic shares equivalent to 10% of offer shares to the National Council for Social Security Fund ("NCSF"), totaling 1,014,875,000 shares. Upon the listing of the Company, shares held by the NCSF were translated into H shares amounting to 1,014,875,000 shares on a one-for-one basis.

As approved by the Reply on Approval of the Initial Public Offer of Shares of CGN Power Co., Ltd. (Zheng Jian Xu Ke [2019] No. 1381) (《關於核准中國廣核電力股份有限公司首次公開發行股票的批覆》(證監許可[2019]1381號)) issued by China Securities Regulatory Commission on July 26, 2019, the Company issued RMB ordinary shares (A shares) under the public offer in August 2019 and the shares were listed on the SME Board of the Shenzhen Stock Exchange. A total of 5,049,861,100 RMB ordinary shares (A shares) were issued with a nominal value of RMB1.00 each. The issue price was RMB2.49. The proceeds amounted to RMB12,574,154,139.00 in total. After deducting the issuance costs, the actual net proceeds amounted to RMB12,389,775,559.44, of which, RMB5,049,861,100.00 was included in the paid-in capital and RMB7,339,914,459.44 was included in the capital reserve. The status of proceeds has been verified by Deloitte Touche Tohmatsu (Certified Public Accountants LLP), which has issued the Capital Verification Report (De Shi Bao (Yan) Zi (19) No. 00386).

The scope of business of the Company and its subsidiaries (the "Group") mainly includes: production and supply of electricity and heat generated mainly from nuclear energy, and provision of related professional technical services; disposal of nuclear wastes; organization and implementation of the construction and management for nuclear power stations engineering projects; organization of the operation, repair and related businesses for nuclear power stations; organization of the design development and scientific research for nuclear power stations; and engagement in related investment, import and export businesses.

The consolidated and the parent company's financial statements were approved by the Board of Directors of the Company on March 25, 2020.

For the scope of consolidated financial statements for the year, please refer to Note (VII) "INTEREST IN OTHER ENTITIES". For the changes in the scope of consolidated financial statements for the year, please refer to Note (VI) "CHANGES IN CONSOLIDATION SCOPE".

# Notes to the Financial Statements

For the year ended December 31, 2019

## (II) BASIS OF PREPARATION OF FINANCIAL STATEMENTS

### Basis of preparation

The Group adopts the Accounting Standards for Business Enterprises and relevant requirements promulgated by the Ministry of Finance, and discloses relevant financial information in accordance with the Rules on the Preparation and Report of Information Disclosure for Companies Publicly Issuing Securities No. 15 – General Requirements for Financial Reports (Revised in 2014). In addition, the financial statements also include information disclosure according to the relevant requirements under the Hong Kong Companies Ordinance and the Listing Rules of the Stock Exchange.

### Going concern

The Group has evaluated its ability of going concern for the next 12 months since December 31, 2019. There is no indication of major events that may affect the ability of going concern. Thus, the financial statements have been prepared under the assumption of going concern.

### Basis of accounting and principle of measurement

The Group's financial statements have been prepared on an accrual basis. Except for certain financial instruments which are measured at fair value, the financial statements are prepared under the historical cost convention. In the event that impairment of assets occurs, a provision for impairment is made accordingly in accordance with the relevant regulations.

Under historical cost method, the amount of assets was measured at the fair value of cash or cash equivalents or consideration paid at the time of purchase. Liabilities were measured at the amount of money or assets and liabilities due to the current obligations actually received, or a present obligation of the contract amount, or the measurement of cash or cash equivalents in accordance with daily activities to repay the debts of the amount expected to be paid.

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Whether fair value is observable or measured by valuation techniques, the measurement and/or disclosure in these financial statements were all based on it.

Fair value measurements are categorized into Level 1, 2 or 3 based on the degree to which the inputs to the fair value measurements are observable and the significance of the inputs to the fair value measurement in its entirety, which are described as follows:

- Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that the entity can access at the measurement date.
- Level 2 inputs are inputs, other than the Level 1 inputs, that are observable for the asset or liability, either directly or indirectly.
- Level 3 inputs are unobservable inputs for the asset or liability.

### (III) SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES

#### 1. Statement of compliance

The financial statements have been prepared in compliance with the Accounting Standards for Business Enterprises to truly and completely reflect consolidated and the parent company's financial position of the Company as at December 31, 2019 and consolidated and the parent company's operating results, changes in shareholders' equity and cash flows for 2019.

#### 2. Accounting period

The Group has adopted the calendar year as its accounting year, i.e. from January 1 to December 31.

#### 3. Operating cycle

Operating cycle refers to period from assets purchased for production to cash or cash equivalents realized.

#### 4. Functional currency

Apart from the functional currency of the primary economic environment of 廣東核電合營有限公司Guangdong Nuclear Power Joint Venture Co, Ltd. ("GNPJVC"), a subsidiary of the Company, being USD, the functional currency of the primary economic environment that the Company and its other subsidiaries operate in is RMB. The Company adopts RMB to prepare the financial statements.

#### 5. The accounting treatment of business combinations involving enterprises under common control and business combinations not involving enterprises under common control

Business combinations are classified into business combination under common control and not under common control.

##### 5.1 Business combinations involving enterprises under common control

A business combination involving enterprises under common control is a business combination in which all of the combining enterprises are ultimately controlled by the same party or parties both before and after the combination, and that control is not transitory.

Assets and liabilities obtained in the business combination are recognized at their carrying amounts at the date of merger as recorded by the party being combined. The difference between the carrying amount of the net assets obtained and the carrying amount of the consideration paid for the combination and/or aggregate face values of the shares issued is adjusted to the share premium in the capital reserves. If the share premium in the capital reserve is not sufficient to absorb the difference, any excess is adjusted to retained profits.

Costs that are directly attributable to the combination are charged to profit or loss when incurred.

##### 5.2 Business combinations not involving enterprises under common control and goodwill

A business combination involving enterprises not under common control is a business combination in which all of the combining enterprises are not ultimately controlled by the same party or parties before and after the combination.

The combination costs shall be the fair value of the assets paid, the liabilities incurred or assumed and the equity instruments issued by the acquirer in exchange for the control over the acquiree. For business combinations not involving enterprises under common control realized step by step through multiple transactions, the cost of combination is the sum of the consideration paid at the acquisition date and the fair value at the acquisition date of the acquirer's previously held interest in the acquiree. The overhead for the business combination of the combining party, including the expenses for audit, legal services, assessment, and other administrative expenses, shall be recorded in profit or loss for the period when incurred.

Identifiable assets, liabilities and contingent liabilities of acquiree qualifying for the conditions of recognition acquired by the acquirer in business combination are measured at fair value on the acquisition date.

For the difference that the combination cost is larger than the portion of fair value of net identifiable assets of acquiree acquired in combination, it is recognized as goodwill as an asset, and initially measured at cost. For those with combination cost lower than the portion of fair value of net identifiable assets of acquiree acquired in combination, re-verification is first carried out on the measurement of the fair value of all identifiable assets, liabilities and contingent liabilities as well as the combination cost. For those with combination cost still lower than the portion of fair value of net identifiable assets of acquiree acquired in combination after re-verification, they are credited to profit or loss for the period.

Goodwill occurred as a result of business combination shall be recognized separately in the consolidated financial statements and measured at cost less accumulated impairment losses.

# Notes to the Financial Statements

For the year ended December 31, 2019

## 6. Basis for preparation of consolidated financial statements

The scope of consolidated financial statements is determined on the basis of control. Control is achieved when the investor has power over the investee; is exposed, or has rights to receive variable returns from its involvement with the investee; and has the ability to use its power to affect its returns. Once the relevant facts and situation changed that altered the elements define control, the Group shall reevaluate control.

Consolidation of a subsidiary begins when the Group obtains control over the subsidiary and ceases when the Group loses control of the subsidiary.

For a subsidiary disposed of by the Group, the operating results and cash flows before the date of disposal (the date when control is lost) are included in the consolidated income statement and consolidated statement of cash flows, as appropriate.

For a subsidiary acquired through a business combination involving enterprises not under common control, the operating results and cash flows from the acquisition date (the date when control is obtained) are included in the consolidated income statement and consolidated statement of cash flows, as appropriate.

No matter when the business combination occurs in the reporting period, subsidiaries acquired through a business combination involving enterprises under common control are included in the Group's scope of consolidation as if they had been included in the scope of consolidation from the date when they first came under the common control of the ultimate controlling party. Their operating results and cash flows from the beginning of the earliest reporting period are included in the consolidated income statement and consolidated statement of cash flows, as appropriate.

The significant accounting policies and accounting periods adopted by the subsidiaries are determined based on the accounting policies and accounting periods consistently set out by the Company.

The effects of all intra-group transactions between the Company and subsidiaries and among the subsidiaries are eliminated on consolidation.

The portion of subsidiaries' equity that is not attributable to the parent company is treated as noncontrolling interests and presented as "non-controlling interests" in the consolidated balance sheet within shareholders' equity. The portion of net profits or losses of subsidiaries for the period attributable to non-controlling interests is presented as "non-controlling interests" in the consolidated income statement below the "net profit" line item.

When the amount of loss for the period attributable to the minority shareholders of a subsidiary exceeds the minority shareholders' portion of the opening balance of owners' equity of the subsidiary, the excess amount is still allocated against non-controlling interests.

Acquisition of non-controlling interests or disposal of interest in a subsidiary that does not result in the loss of control over the subsidiary is accounted for as equity transactions. The carrying amounts attributable to owners' of the parent company and non-controlling interests are adjusted to reflect the changes in their relative interests in the subsidiary. The difference between the amount by which the non-controlling interests are adjusted and the fair value of the consideration paid or received is adjusted to capital reserve. If the capital reserve is not sufficient to absorb the difference, the excess is adjusted against retained earnings.

Where equity interests in an acquiree are acquired in stages through multiple transactions ultimately constituting a business combination not involving entities under common control, the acquirer determines if these transactions are considered to be "a bundled transaction". If yes, these transactions are accounted for as a single transaction where control is obtained. If no, these transactions are accounted for as multiple transactions where control is obtained at the acquisition date; In this case, the acquirer remeasures its previously-held equity interests in the acquiree at their fair value on the acquisition date and recognizes any differences between such fair value and carrying amounts in profit or loss for the period. Where equity interests in an acquiree held before the acquisition date involve changes in other comprehensive income or changes in other owners' equity under equity method, they are transferred to income for the period that the acquisition date belongs to.

When the Group loses control over a subsidiary due to disposal of certain equity interest or other reasons, any retained interest is re-measured at its fair value at the date when control is lost. The difference between the aggregate of the consideration received on disposal and the fair value of any retained interest(s) and the share of the former subsidiary's net assets cumulatively calculated from the acquisition date according to the original proportion of ownership interest is recognized as investment income in the period in which control is lost, and at the same time adjusted against goodwill. Other comprehensive income associated with investment in the former subsidiary is reclassified to investment income in the period in which control is lost.

## 7. Classification of joint arrangements and accounting treatment for joint ventures

There are two types of joint arrangements – joint operations and joint ventures. The type of joint arrangements is determined based on the rights and obligations of joint operators to the joint arrangements by considering the factors, such as the structure, the legal form of the arrangements, and the contractual terms, etc. A joint operation is a joint arrangement whereby the joint operators have rights to the assets, and obligations for the liabilities, relating to the arrangement. A joint venture is a joint arrangement whereby the joint ventures have rights to the net assets of the arrangement.

The Group adopts the equity method to account the investment in joint ventures. For details, please refer to Note (III) 13.3.2. “Long-term equity investments accounted for using the equity method”.

## 8. Standards for determining cash and cash equivalents

Cash comprises cash in hand and deposits that can be readily withdrawn on demand. Cash equivalents are the Group’s short-term, highly liquid investments that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value.

## 9. Translation of transactions and financial statements denominated in foreign currencies

### 9.1 Transactions denominated in foreign currencies

A foreign currency transaction is recorded, on initial recognition, by applying the spot exchange rate on the date of the transaction.

At the balance sheet date, foreign currency monetary items are translated using the spot exchange rates at the balance sheet date. Exchange differences arising from the differences between the spot exchange rates prevailing at the balance sheet date and those on initial recognition or at the previous balance sheet date are recognized in profit or loss for the period, except that (1) exchange differences related to a specific-purpose borrowing denominated in foreign currency that qualify for capitalization are capitalized as part of the cost of the qualifying asset during the capitalization period; (2) exchange differences related to hedging instruments for the purpose of hedging against foreign currency risks are accounted for using hedge accounting; and (3) exchange differences arising from changes in carrying value other than amortized cost of monetary items that are classified as measured at fair value through other comprehensive income are included in other comprehensive income.

Foreign currency non-monetary items measured at historical cost are translated into the amounts in functional currency at the spot exchange rates on the dates of the transactions and the amounts in functional currency remain unchanged. Foreign currency non-monetary items measured at fair value are re-translated at the spot exchange rate on the date the fair value is determined. Difference between the re-translated functional currency amount and the original functional currency amount is treated as changes in fair value (including changes of exchange rate) and is recognized in profit and loss or as other comprehensive income.

### 9.2 Translation of financial statements denominated in foreign currencies

For the purpose of preparing the consolidated financial statements, financial statements with USD as the functional currency are translated from the foreign currency into RMB using the following method: assets and liabilities on the balance sheet are translated at the spot exchange rate prevailing at the balance sheet date; shareholders’ equity items are translated at the spot exchange rates at the dates on which such items arose; all items in the income statement as well as items reflecting the distribution of profits are translated at exchange rates that approximate the actual spot exchange rates on the dates of the transactions; the difference between the translated assets and the aggregate of liabilities and shareholders’ equity items is recognized as other comprehensive income and included in shareholders’ equity.

Cash flows arising from a transaction in foreign currency and the cash flows of a foreign subsidiary are translated at an exchange rate which approximates the spot exchange rate on the date of the cash flows. The effect of exchange rate changes on cash and cash equivalents is regarded as a reconciling item and presented separately in the cash flow statement as “effect of exchange rate changes on cash and cash equivalents”.

The opening balances and the comparative figures of previous year are presented at the translated amounts in the previous year’s financial statements.

On disposal of the Group’s entire interest in a foreign operation, or upon a loss of control over a foreign operation due to disposal of certain interest in it or other reasons, the Group transfers the accumulated exchange differences arising on translation of financial statements of this foreign operation attributable to the owners’ equity of the parent company and presented under shareholders’ equity, to profit or loss in the period in which the disposal occurs.

In case of a disposal or other reason that results in a reduction in the proportional interest held but does not result in losing control over a foreign operation, the proportionate share of accumulated exchange differences arising on translation of financial statements are re-attributed to non-controlling interests and are not recognized in profit and loss. For partial disposals of equity interests in foreign operations which are associates or joint ventures, the proportionate share of the accumulated exchange differences arising on translation of financial statements of foreign operations is reclassified to profit or loss.

# Notes to the Financial Statements

For the year ended December 31, 2019

## 10. Financial instruments

Financial assets and financial liabilities are recognized when the Group becomes a party to the contractual provisions of the financial instrument.

For financial assets purchased and sold in regular way, the assets to be received or liabilities to be assumed are recognized on the transaction date, or disposed assets are derecognized on the transaction.

The financial assets and liabilities were initially recognized at fair value. For the financial assets and liabilities measured at fair value through profit or loss ("FVTPL"), related transaction expenses are charged to the profit or loss, for other financial assets and liabilities, related transaction expenses are included in the initial recognized amount. When initially recognized by the Group according to the Accounting Standards for Business Enterprises No.14 – Revenue", accounts receivable that do not contain a significant financing component or for which the financing component in the contract within 1 year is not considered are initially recognized at the transaction price defined under the revenue standard.

The effective interest rate method is a method of calculating the amortized cost of a financial asset or a financial liability and of allocating the interest income or interest expense over each accounting period.

The effective interest rate is the rate that exactly discounts estimated future cash flow through the expected life of the financial asset or financial liability to the book balance of a financial asset or to the amortized cost of a financial liability. In determining the effective interest rate, expected cash flow is estimated after taking into account all contract terms of financial assets or financial liabilities, including early repayment, extension, call option or other similar options, without considering expected credit loss.

The amortized cost of financial assets or financial liabilities is calculated by deducting repaid principal amount from initially recognized amount of the financial assets or financial liabilities, adding or subtracting the accumulated amortization amount which is the amortized difference between the initial recognition amount and the amount at the expiry date using the effective interest rate method, then further deducting the accumulated impairment of loss (only applicable to financial assets).

### 10.1 Classification, recognition and measurement of financial assets

Subsequent to initial recognition, the Group's financial assets of various categories are subsequently measured at amortized cost, fair value through other comprehensive income ("FVTOCI") or FVTPL.

If contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding, and the financial asset is held within the Group's business model whose objective is to hold financial assets in order to collect contractual cash flows, such asset is classified into financial asset measured at amortized cost. Such financial asset mainly includes cash at bank and in hand, bills receivable, accounts receivable and other receivables, etc.

If contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding, and the financial asset is held within the Group's business model whose objective is to hold financial assets in order to collect contractual cash flows and sell the financial asset, such asset is classified into financial asset measured at FVTOCI. Such financial asset is presented as other debt investments. The debt investments due within 1 year (inclusive) from the balance sheet date are presented in non-current assets due within one year; other debt investments due within 1 year (inclusive) when they are acquired are presented in other current assets.

Apart from the derivative financial assets presented in financial assets held for trading, financial assets at FVTPL includes financial assets at FVTPL and those designated as at FVTPL. The assets due more than 1 year and expected to be held for more than 1 year are presented in other non-current financial assets.

- Both financial assets fail to qualify as at amortized cost, and those classified as at FVTOCI are classified into financial assets at FVTPL.
- On initial recognition, the Group may irrevocably designate a financial asset as measured at FVTPL if doing so eliminates or significantly reduces an accounting mismatch and includes mixed contract conditions of embedded derivatives.

On initial recognition, the Group may, on the basis of individual financial asset, irrevocably designate equity instrument investments not held for trading (excluding contingent considerations) recognized in business combination not under common control as financial assets at FVTOCI. Such financial assets are stated as investment in other equity instruments.

If a financial asset meets one of the following conditions, it is considered that such asset is held by the Group for trading:

- The purpose of obtaining such financial asset is mainly for selling in the near future.
- Such financial asset is part of the identifiable financial instrument portfolio that is centrally managed at initial recognition, and there is objective evidence that short-term profit model exists in the near future.
- Such financial asset is a derivative, except for derivatives that meet the definition given in the financial guarantee contract and derivatives that are designated as effective hedging instruments.

#### 10.1.1 Financial assets at amortized cost

Financial assets at amortized cost adopt the effective interest rate method and subsequently measured at amortized cost. Impairment or gains or losses arising from derecognition is recognized in profit or loss.

The Group adopts the effective interest rate method to recognize interest income for financial assets at amortized cost. Interest income is calculated by the carrying amount of financial assets multiplied by effective interest rate, with the following exception:

- a purchased or originated credit-impaired (“POCI”) financial asset, whose interest income is calculated since initial recognition by applying the credit-adjusted effective interest rate to its amortized cost.

#### 10.1.2 Financial assets at FVTOCI

Except for impairment losses or gains of financial assets classified as measured at FVTOCI, and interest income and exchange gains or losses calculated at effective interest rate recognized in profit or loss, the changes in fair value of the financial asset are recognized in the other comprehensive income. The amount of the financial assets included in profit or loss for each period shall be equal to the amount it has been measured at amortized cost and included in profit or loss for each period. When the financial assets are derecognized, the accumulated gains or losses previously included in other comprehensive income shall be transferred from other comprehensive income and included in profit or loss.

After designating equity instrument investments not held for trading as financial assets at FVTOCI, changes in fair value of such financial assets are recognized in other comprehensive income. Upon derecognition, accumulated gains or losses previously recognized in other comprehensive income shall be transferred and included in retained earnings. In the duration of holding such equity instrument investments not held for trading, when the Group’s right to receive dividends is established, economic benefits related to dividends are likely to flow into the Group, and the amount of dividends may be reliably measured, dividend income shall be calculated and recognized in profit or loss.

#### 10.1.3 Financial assets at FVTPL

Financial assets at FVTPL shall be subsequently measured at fair value. Relevant gains or loss as well as dividends and interest income related to such financial assets shall be recognized in profit or loss.

### 10.2 Impairment of financial instruments

For financial assets measured at amortized cost, financial assets classified as measured at FVTOCI and contract assets, impairment shall be accounted for on the basis of expected credit loss and loss impairment shall be recognized, etc.

The Group makes a loss allowance against amount of expected credit losses equal to the whole life of the contract assets or bills receivable and accounts receivable that exclude significant financing component or do not consider the financing component in the contract within one year arising from transactions adopting the Accounting Standards for Business Enterprises No.14 – Revenue.

As for other financial instruments, other than purchased or POCI financial assets, the Group assesses the changes in credit risk of such financial instruments since the initial recognition at each balance sheet date. If the credit risk of such financial instrument has significantly increased since initial recognition, the Group shall make loss allowance equivalent to the amount of expected credit loss during its whole life; if the credit risk of such financial instrument has not significantly increased since initial recognition, the Group shall make loss allowance equivalent to the amount of expected credit loss for the next 12 months. Apart from financial assets classified as measured at FVTOCI, increase or reversal of credit loss allowance are recognized in profit or loss as impairment losses or gains. The Group recognizes the credit loss allowance of financial assets classified as measured at FVTOCI, while allowance losses or gains are recognized in profit or loss, without deducting its carrying amount stated in the balance sheet.

The Group has made a loss allowance against amount of expected credit losses equal to the whole life in the prior accounting period. However, at the balance sheet date, the credit risk on a financial instrument has not increased significantly since initial recognition; the Group will measure the loss allowance for that financial instrument at an amount equal to 12-month expected credit losses. Reversed amount of loss allowance arising from such circumstances shall be included in profit or loss as impairment gains.

# Notes to the Financial Statements

For the year ended December 31, 2019

## 10.2.1 Significant increase of credit risk

The Group will make use of reasonable and supportable forward-looking information that is available to determine whether credit risk has increased significantly since initial recognition through comparing the risk of a default occurring on the financial instrument as at the reporting date with the risk of a default occurring on the financial instrument as at the date of initial recognition.

The Group will take the following factors into consideration when assessing whether credit risk has increased significantly:

- (1) Significant changes in internal price index due to changes in credit risk.
- (2) If existing financial instruments are originated or released on the date of balance sheet as new financial instruments, significant changes in the interest rate or other terms of such financial instruments, such as in stricter contract terms, increase in collateral, or higher returns, etc.
- (3) Significant changes in external market indicators of credit risk for a particular financial instrument or similar financial instruments with the same expected life. These indicators include credit spread, credit default swap prices against the borrower, the length of time or the extent to which the fair value of a financial asset has been less than its amortized cost and other market information related to the borrower, such as changes in the price of a borrower's debt and equity instruments.
- (4) Actual or expected significant changes in external credit rating of the financial instruments.
- (5) An actual or expected internal credit rating downgrade for the borrower.
- (6) Adverse changes in business, financial or economic conditions that are expected to cause a significant change in the borrower's ability to meet its debt obligations.
- (7) An actual or expected significant change in the operating results of the borrower.
- (8) Significant increases in credit risk on other financial instruments of the same borrower.
- (9) Significant adverse change in the regulatory, economic, or technological environment of the borrower.
- (10) Significant changes in the value of the collateral supporting the obligation or in the quality of third-party guarantees or credit enhancements, which are expected to reduce the borrower's economic incentive to make scheduled contractual payments or to otherwise have an effect on the probability of a default occurring.
- (11) Significant changes in circumstances expected to reduce the borrower's economic incentive to make scheduled contractual payments.
- (12) Expected changes in the loan contracts including an expected breach of contract that may lead to covenant waivers or amendments, interest payment holidays, interest rate step-ups, requiring additional collateral or guarantees, or other changes to the contractual framework of the financial instrument.
- (13) Significant changes in the expected performance and behavior of the borrower.
- (14) Changes in the Group's credit management approach in relation to the financial instrument.

Regardless if the above assessment indicates any significant changes in credit risk, if contractual payment of a financial instrument is over due by 30 days (inclusive), it is considered that the credit risk of such instrument has significantly increased.

## 10.2.2 Credit-impaired financial assets

When the Group expected occurrence of one or more events which may cause adverse impact on future cash flows of a financial asset, the financial asset will become a credit-impaired financial asset. Objective evidence that a financial asset is impaired includes the following observable events:

- (1) Significant financial difficulty of the issuer or obligor;
- (2) A breach of contract by the borrower, such as a default or delinquency in interest or principal payments;
- (3) The creditor, for economic or legal reasons relating to the borrower's financial difficulty, granting a concession to the borrower, which would not be made under any other circumstances.
- (4) It becoming probable that the borrower will enter bankruptcy or other financial reorganizations;
- (5) The disappearance of an active market for that financial asset because of financial difficulties of the issuer or the borrower;
- (6) Purchase or originate a financial asset with a large scale of discount, which reflects facts of credit loss incurred.

The Group considers that a default event has occurred when internal advice or externally obtained information indicates that financial instrument debtor is unable to fully repay the creditors including the Group, without consideration of any guarantees obtained by the Group.

Regardless of the results of the above assessment, the Group considers that a default event related to the financial instrument has occurred when contractual payment for such instrument is overdue by 90 days (inclusive).

### 10.2.3 Determination of expected credit loss

The Group uses a provision matrix to determine the expected credit losses for relevant financial instruments based on a collective basis of bills receivable, accounts receivable and contract assets. The Group classifies financial instruments into different groups based on common risk characteristics. The common risk characteristics adopted by the Group include: types of financial instrument, credit risk ratings, remaining contract terms and industry in which the debtor operates, etc.

For financial assets, a credit loss is the present value of the difference between the contractual cash flows that are due to the Group under the contract and the cash flows that the Group expects to receive.

The factors reflected in methods of measurement of expected credit losses of financial instruments include an unbiased and probability-weighted amount that is determined by evaluating a range of possible outcomes; time value of money; reasonable and supportable information about past events, current conditions and forecasts on future economic status at balance sheet date without unnecessary additional costs or efforts.

### 10.2.4 Write-down of financial assets

When the Group will no longer reasonably expect that the contractual cash flows of financial assets can be collected in aggregate or in part, the Group will directly write down the carrying amount of the financial asset. Such write-down constitutes derecognition of relevant financial assets.

## 10.3 Transfer of financial assets

The Group derecognizes a financial asset if one of the following conditions is satisfied: (i) the contractual rights to the cash flows from the financial asset expire; or (ii) the financial asset has been transferred and substantially all the risks and rewards of ownership of the financial asset is transferred to the transferee; or (iii) although the financial asset has been transferred, the Group neither transfers nor retains substantially all the risks and rewards of ownership of the financial asset but has not retained control of the financial asset.

If the Group neither transfers nor retains substantially all the risks and rewards of ownership of a financial asset, and it retains control of the financial asset, it recognizes the financial asset to the extent of its continuing involvement in the transferred financial asset and recognizes an associated liability. The Group measures relevant liabilities as follows:

- For the transferred financial asset measure at amortized cost, the carrying amount of relevant liabilities equals to carrying amount of the continuously-involved transferred financial asset less amortized cost of rights retained by the Group (if the Group retains relevant right due to transfer of financial assets) plus amortized costs of the obligation assumed by the Group (if the Group retains relevant right due to transfer of financial assets), relevant liabilities shall not be designated as financial liabilities at FVTPL.
- For the transferred financial asset measure at fair value, the carrying amount of relevant liabilities equals to carrying amount of the continuously-involved transferred financial asset less fair value of rights retained by the Group (if the Group retains relevant right due to transfer of financial assets) plus fair value of the obligation assumed by the Group (if the Group retains relevant right due to transfer of financial assets), the fair value of the right and obligation is fair value measured on stand-alone basis.

For a transfer of a financial asset in its entirety that satisfies the derecognition criteria, the difference between the carrying amount of the financial asset transferred on the date of derecognition and the derecognition-related part of the sum of the consideration received from the transfer and any cumulative gain or loss that has been recognized in other comprehensive income, is recognized in profit or loss. If the financial assets transferred by the Group are equity instrument not held for trading designated as financial assets at FVTOCI, cumulative gain or loss that has been recognized in other comprehensive income should be transferred from other comprehensive income to retained earnings.

If a part of the transferred financial asset qualifies for derecognition, the carrying amount of the transferred financial asset is allocated between the part that continues to be recognized and the part that is continuously involved, based on the respective fair values of those parts on transfer date. The difference between the sum of the consideration received for the part derecognized and any cumulative gain or loss allocated to the part derecognized which has been previously recognized in other comprehensive income and the carrying amount allocated to the part derecognized on derecognition date; and, is recognized in profit or loss. If the financial asset transferred by the Group are designated as equity instrument investment not held for trading at FVTOCI, cumulative gains or losses previously recognized in other comprehensive income are transferred to retained earnings.

For a transfer of a financial asset in its entirety that does not satisfy the derecognition criteria, the Group will continuously recognize the transferred financial asset in its entirety. Considerations received due to transfer of assets shall be recognized as a liability upon receipts.

# Notes to the Financial Statements

For the year ended December 31, 2019

## 10.4 Classification of financial liabilities and equity instruments

Financial instruments or its constituent parts issued by the Group are classified into financial liabilities or equity instruments on the basis of the contractual arrangements and the economic substance not only its legal form, together with the definition of financial liability and equity instruments.

### 10.4.1 Classification, recognition and measurement of financial liabilities

On initial recognition, financial liabilities are classified into financial liabilities at FVTPL and other financial liabilities.

#### 10.4.1.1 Financial liabilities at FVTPL

Financial liabilities at FVTPL consist of financial liabilities held for trading (including derivatives included in financial liabilities) and those designated as at FVTPL. Other than derivative financial liabilities to be set out separately, financial liabilities at FVTOCI are stated as financial liabilities held for trading.

If a financial liability meets one of the following conditions, it is considered that such liability is held by the Group for trading:

- The financial liability was acquired principally for the purpose of repurchasing in near future.
- The financial liability is part of a portfolio of identifiable financial instruments upon initial recognition, and there is objective evidence that a recent actual pattern of short-term profitmaking exists.
- The financial liability is a derivative instrument, except for derivatives meeting the definition of financial guarantee contract, or designated as an effective hedging instrument.

A financial liability may be designated as measured at FVTPL upon initial recognition when one of the following conditions is satisfied: (i) such designation can eliminate or significantly reduce accounting mismatches; (2) conduct management and performance evaluation on groups of financial liabilities or groups of financial assets and financial liabilities on a fair value basis, in accordance with the Group's formally documented risk management or investment strategy, and report to key management personnel on that basis; or (3) qualified mixed financial instrument with embedded derivatives.

Financial liabilities held for trading are subsequently measured at fair value. Any gains or losses arising from changes in the fair value and any dividend or interest expenses paid on the financial liabilities are recognized in profit or loss.

For financial liabilities designated as measured at FVTOCI, changes in fair value arising from the Group's own changes in credit risks are recognized in other comprehensive income, while other fair value changes are recognized in profit or loss. Upon derecognition, the cumulative changing amount of fair value arising from the Group's own changes in credit risks shall be transferred to retained earnings. Any dividend or interest expenses paid on the financial liabilities are recognized in profit or loss. If make treatment on effect of the changes in own credit risks by the aforesaid means which may cause or enlarge an accounting mismatch in profit or loss, the Group will recognize all gains or losses (including the affected amount arising from changes in the own credit risk) of the financial liability into profit or loss.

#### 10.4.1.2 Other financial liabilities

Other financial liabilities, except for financial liabilities arising from transfer of financial assets does not satisfy derecognition criteria or continue involvement of transferred financial assets, are subsequently measured at amortized cost, with gain or loss arising from derecognition or amortization recognized in profit or loss.

In the event that the Group and its counterparty modify or renegotiate the contract does not result in derecognition of a financial liability subsequently measured at amortized cost but result in changes in contractual cash flows, the Group will recalculate the carrying amount of the financial liability, with relevant gain or loss recognized in profit or loss. The Group will determine carrying amount of the financial liability based on the present value of renegotiated or modified contractual cash flows discounted at the financial liability's original effective interest rate. For all costs or expenses arising from modification or renegotiation of the contract, the Group will adjust the modified carrying amount of the financial liability and make amortization during the remaining term of the modified financial liability.

#### 10.4.2 Derecognition of financial liabilities

The Group derecognizes a financial liability (or part of it) only when the underlying present obligation (or part of it) is discharged. An agreement between the Group (an existing borrower) and an existing lender to replace the original financial liability with a new financial liability with substantially different terms is accounted for as an extinguishment of the original financial liability and the recognition of a new financial liability.

When the Group derecognizes a financial liability or a part of it, it recognizes the difference between the carrying amount of the financial liability (or part of the financial liability) derecognized and the consideration paid (including any non-cash assets transferred or new financial liabilities assumed) in profit or loss.

#### 10.4.3 Equity instruments

An equity instrument is any contract that evidences a residual interest in the assets of the Group after deducting all of its liabilities. Equity instruments issued (including refinanced), repurchased, sold and cancelled by the Group are recognized as changes of equity. Change of fair value of equity instruments is not recognized by the Group. Transaction costs related to equity transactions are deducted from equity.

The Group recognizes the distribution to holders of the equity instruments as distribution of profits, and dividends paid do not affect total amount of shareholders' equity.

#### 10.5 Derivatives and embedded derivatives

Derivative instruments include foreign currency forward contracts, currency swap contracts, interest rate swap contracts, etc. Derivatives are initially measured at fair value on the date of signing of such contracts, and subsequently measured at fair value.

For mixed contracts consisting of derivatives and host contracts, if host contracts are financial assets, instead of separating embedded derivative instruments from the mixed contract, the Group shall assess the mixed contract as a whole in applying the accounting standards for financial asset classification.

When the host contract in the hybrid is not a financial asset while also meeting the following conditions, the Group shall separate the embedded derivative instrument from the hybrid, which is accounted for as an individual derivative financial instrument.

- (1) The economic characteristics and risks of the embedded derivative are not closely related to the host contract.
- (2) A separate instrument with the same terms as the embedded derivative would meet the definition of a derivative.
- (3) The hybrid is not measured at FVTPL.

Where embedded derivative instrument is separated from the hybrid, the Group makes accounting treatment for the host contract according to applicable accounting standards. If the fair value of embedded derivative instrument cannot be reliably measured based on its terms and conditions, the fair value of the embedded derivative instrument shall be determined by the difference between the fair value of the hybrid and the fair value of the host contract. After applying the above method, if the fair value of the embedded derivative instrument still cannot be independently measured on the date of acquisition or the subsequent balance sheet date, the Group shall designate the hybrid as a whole as a financial instrument measured at FVTPL.

#### 10.6 Offsetting financial assets and financial liabilities

Where the Group has a legal right that is currently enforceable to set off the recognized financial assets and financial liabilities, and intends either to settle on a net basis, or to realize the financial asset and settle the financial liability simultaneously, a financial asset and a financial liability shall be offset and the net amount is presented in the balance sheet. Except for the above circumstances, financial assets and financial liabilities shall be presented separately in the balance sheet and shall not be offset.

# Notes to the Financial Statements

For the year ended December 31, 2019

## 11. Receivables

### 11.1 Receivables for which bad debt provision is individually assessed

Reason for individual provision for bad debts	If there exists evidence that the credit risk of certain individual receivable is significant, bad debt provision is individually assessed for such receivable.
Method for bad debt provision	To be impaired individually, and the difference between the present value of the estimated future cash flows and its carrying amount is used for bad debt provision.

### 11.2 Receivables for which bad debt provision is collectively assessed on a portfolio basis by credit risk characteristics

Other than receivables for which bad debt provision is individually assessed, receivables are grouped based on the similarities and relevance of the credit risk characteristics. Such credit risks usually reflect the repayment capacity of debtors under the contract terms of such assets, and relate to the future cash flow measurement of the examined assets. The basis for determination and method of determining provision for bad debt of each portfolio are as follows:

Name of portfolio	Basis of determining the portfolio
Portfolio 1	Amount from debtors simultaneously having a long-term cooperation history, no history of bad debt and sound state of operation.
Portfolio 2	Receivables other than Portfolio 1.

Bad debt provision of above portfolios is made using aging analysis:

Aging	Portfolio 1	Portfolio 2
Within 1 year	0.30%	0.30%
1 to 2 years	5%	10%
2 to 3 years	20%	30%
3 to 4 years	30%	50%
4 to 5 years	50%	80%
Over 5 years	100%	100%

## 12. Inventories

### 12.1 Classification of inventories

The Group's inventories mainly include raw materials, nuclear fuel, spare parts, products in stock, consigned processing materials, materials in transit and turnover materials. Inventories are initially measured at cost. Inventory costs include procurement costs, processing costs and other expenses incurred to enable the inventories to reach the present site and working condition.

### 12.2 Valuation method of inventories upon delivery

Upon delivery of inventories, actual cost of nuclear fuel is calculated using the specific identification method based on the number of refueling batches, and included in the production cost by installments at the current and the next refueling period based on the on-grid power generation. Actual cost of other inventories are calculated using the weighted average method or specific identification method.

Turnover materials are materials that can be reused many times and still be remained in original

condition after gradual transfer of their value but are not recognized as fixed assets, including packaging materials, low-value and short-lived consumables and other turnover materials. Packaging materials, low-value and short-lived consumables and other turnover materials are amortized by one-time write-off.

### 12.3 Recognition of net realizable value of inventories and provision for inventory impairment

At the balance sheet date, inventories are calculated at the lower of cost and net realizable value. Provision for inventory impairment is made when the net realizable value is lower than the cost. Net realizable value represents the estimated selling price of inventories minus cost estimated to incur upon completion, estimated selling costs and relevant taxes during normal course of business. The net realizable value of inventory is determined based on the actual evidences obtained while the objectives of inventories holding and the impact of post balance sheet date event are also considered.

Provision for decline in value of inventories is made based on the excess of cost of inventory over its net realizable value on an item-by-item basis.

After the provision for decline in value of inventories is made, if the circumstances that previously caused inventories to be written down below cost no longer exist so that the net realizable value of inventories is higher than their cost, the original provision for decline in value is reversed and the reversal is included in profit or loss for the period.

### 12.4 Inventory count system

The inventory count system shall be on a perpetual basis.

## 13. Long-term equity investments

### 13.1 Judgement criterion of determining joint control or significant influence over the investee

Control exists when the investor has power over the investee; is exposed, or has rights, to variable returns from its involvement with the investee; and has the ability to use its power over the investee to affect its returns. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require unanimous consent of the parties sharing control. Significant influence is the power to participate in the financial and operating policy decisions of an enterprise, except to control or joint control the formulation of such policies together with other parties. In determining whether there is control or significant influence over the investee, potential voting right factors (such as the convertible corporate bonds for the period and the exercisable stock warrants for the period of the investee and other invested units held) were taken into account.

### 13.2 Determination of initial investment cost

For a long-term equity investment acquired through a business combination involving enterprises under common control, the initial investment cost of the long-term equity investment is the attributable share of the carrying amount of the shareholders' equity of the acquiree at the date of combination in the consolidated financial statements of the ultimate controlling party. The difference between the initial investment cost and the carrying amount of cash paid, non-cash assets transferred and liabilities assumed is adjusted to capital reserve. If the balance of capital reserve is not sufficient, any excess is adjusted to retained earnings. If the consideration of the combination is satisfied by the issue of equity securities, the initial investment cost of the long-term equity investment is the attributable share of the carrying amount of the shareholders' equity of the acquiree in the consolidated financial statements of the ultimate controlling party. The aggregate face value of the shares issued is accounted for as share capital. The difference between the initial investment cost and the aggregate face value of the shares issued is adjusted to capital reserve. If the balance of capital reserve is not sufficient, any excess is adjusted to retained earnings.

For a long-term equity investment acquired through business combination not involving enterprises under common control, the initial investment cost of the long-term equity investment is the cost of acquisition at the date of combination. For a business combination realized by more than one transaction and ultimately not under common control, different accounting methods are adopted by the criteria of whether those transactions are classified as "a bundle of transactions" or not. If yes, all transactions are deemed as one transaction getting control of the acquirer and are dealt with the relevant accounting method. If no, the Company regards the sum of carrying value of the equity investment of the acquirer plus added cost of investment as the initial cost of investment. For such carrying value of the equity investment, if it is accounted by method of equity, then the relevant other comprehensive income is not accounted for the period.

The intermediary fees incurred by the absorbing party or acquirer such as audit, legal, valuation and consulting fees, etc. and other related administrative expenses attributable to the business combination are recognized in profit or loss when they are incurred.

The long-term equity investment acquired otherwise than through a business combination is initially measured at cost. When the entity is able to exercise significant influence or joint control (but not control) over an investee due to additional investment, the cost of long-term equity investments is the sum of the fair value of previously-held equity investments determined in accordance with the Accounting Standards for Business Enterprises No. 22 – Recognition and Measurement of Financial Instruments, and the additional investment cost.

# Notes to the Financial Statements

For the year ended December 31, 2019

## 13.3 Method for subsequent measurement and profit or loss recognition

### 13.3.1 Long-term equity investments accounted for using the cost method

Long-term equity investments in subsidiaries are accounted for using the cost method in the financial statements of the parent company. A subsidiary is an investee that is controlled by the Group.

Under the cost method, a long-term equity investment is measured at initial investment cost. When additional investment is made or the investment is recouped, the cost of the long-term equity investment is adjusted accordingly. Investment income is recognized in the period in accordance with the attributable share of cash dividends or profit distributions declared by the investee.

### 13.3.2 Long-term equity investments accounted for using the equity method

Except for all or part of the investment in associates and joint ventures classified as assets held for sale, the Group accounts for investment in associates and joint ventures using the equity method. An associate is an entity over which the Group has significant influence; a joint venture is a joint arrangement whereby the Group has rights to the net assets of the arrangement.

Under the equity method, where the initial investment cost of a long-term equity investment exceeds the Group's share of the fair value of the investee's identifiable net assets at the time of acquisition, no adjustment is made to the initial investment cost. Where the initial investment cost is less than the Group's share of the fair value of the investee's identifiable net assets at the time of acquisition, the difference is recognized in profit or loss for the period, and the cost of the long-term equity investment is adjusted accordingly.

Under the equity method, the Group recognizes its share of the net profit or loss and other comprehensive income made by the investee as investment income and other comprehensive income respectively, and adjust the carrying amount of the long-term equity investment accordingly; the carrying amount of the investment is reduced by the portion of any profit distributions or cash dividends declared by the investee that is distributed to the Group; the share of the changes in owners' equity of the investee other than those arising from net profit or loss, other comprehensive income and profit distribution are recognized in the capital reserve and the carrying amount of the long-term equity investment is adjusted accordingly. The Group recognizes its share of the investee's net profit or loss after making appropriate adjustments based on the fair value of the investee's individual separately identifiable assets, etc. at the acquisition date. Where the accounting policies and accounting period adopted by the investee are not consistent with those of the Group, the Group shall adjust the financial statements of the investee to conform to its own accounting policies and accounting period, and recognize investment income and other comprehensive income based on the adjusted financial statements.

For the Group's transactions with its associates and joint ventures where assets contributed or sold does not constitute a business, unrealized intra-group profits or losses are recognized as investment income or loss to the extent that those attributable to the Group's proportionate share of interest are eliminated. However, unrealized losses resulting from the Group's transactions with its associates and joint ventures which represent impairment losses on the transferred assets are not eliminated.

If the assets transfer made by the Group is classified as a business transaction, fair value of the asset transferred are recognized as initial cost of the additional long-term equity investment, and the difference between initial cost of investment and carrying value of asset transferred are taken in full amount into the current profit or loss, if the investor obtained long-term equity investment but not control over the investee. If the disposal of assets made by the Group is classified as a business transaction, the difference between consideration of assets sold and carrying value of the asset are taken in full amount into the current profit or loss. If assets purchased from associates and joint ventures are classified as business transactions, then full amount of profit or loss relating to the transaction are recognized, according to the requirements under the Accounting Standards for Business Enterprise No. 20 – Business Combination.

The Group discontinues recognizing its share of net losses of the investee after the carrying amount of the long-term equity investment and any long-term interest that in substance forms part of the Group's net investment in the investee is reduced to zero, except to the extent that the Group has an obligation to assume additional losses, in which case, the expected liability shall be recognized at the obligation to be assumed and be included in investment loss incurred during the current periods. Where net profits are subsequently made by the investee, the Group resumes recognizing its share of those profits only after its share of the profits equals the share of losses not recognized.

### 13.4 Disposal of long-term equity investments

On disposal of a long-term equity investment, the difference between the proceeds actually received and the carrying amount is recognized in profit or loss for the period. For long-term equity investments accounted for using the equity method, if the remaining interest after disposal is still accounted for using the equity method, other comprehensive income previously recognized for using the equity method is accounted for on the same basis as would have been required if the investee had directly disposed of related assets or liabilities, and transferred to profit or loss for the period on a pro rata basis; owners' equity recognized due to changes in other owners' equity of the investee (other than net profit or loss, other comprehensive income and profit distribution) is transferred to profit or loss for the period on a pro rata basis. For long-term equity investments accounted for using the cost method, if the remaining interest after disposal is still accounted for using the cost method, other comprehensive income previously recognized for using the equity method or in accordance with the standards for the recognition and measurement of financial instruments before obtaining the control over the investee, is accounted for on the same basis as would have been required if the investee had directly disposed of related assets or liabilities, and transferred to profit or loss for the period on a pro rata basis; changes in other owners' equity in the investee's net assets recognized under the equity method (other than net profit or loss, other comprehensive income and profit distribution) is transferred to profit or loss for the period on a pro rata basis.

For the remaining share equity after partial disposal which causes the Group to lose full control over the investee, equity method will be used to account and adjust for the remaining share equity as if they are accounted by the same method upon acquisition, if such equity enables the Group to exercise joint control or significant influences over the investee. If not, the difference between the fair value upon the date of losing control and the carrying value will be taken into the current profit or loss, according to the regulations of financial instrument recognition and measurement. For the other comprehensive income recognized by equity method or by financial instruments recognition and measurement before the Group takes control of the investee, the same basis the investee while disposing relative asset or liability will be adopted for accounting when the Group loses control over the investee, changes to shareholders' equity in the net asset of investee recognized by equity method, other than net profit or loss, other comprehensive income and profit distribution will be carried forward to the current profit or loss. Meanwhile, other comprehensive income and other shareholders' equity will be carried proportionately if the remaining share equity is accounted by equity method; and will be carried in full amount if the remaining share equity is accounted by financial instrument recognition and measurement.

The remaining share equity after partial disposal that causes the Group to lose joint control or significant influences over the investee are accounted by financial instrument recognition and measurement, difference between the fair value of such equity upon the date of losing control or significant influence and the carrying value will be taken into the current profit or loss. Other comprehensive income recognized using equity method for the previous share equity investment will be accounted using the same basis as the investee while disposing relative asset or liability, full amount of shareholders' equity recognized by other change to shareholders' equity other than net profit or loss, other comprehensive income or profit distribution will be taken into return on investment for the period when equity method stops being adopted.

## 14. Investment properties

Investment property refers to real estate held to earn rentals or for capital appreciation, or both, including leased land use rights, land use rights held and provided for transferring after appreciation and leased buildings, etc.

Investment property is initially measured at cost. Subsequent expenditures related to an investment property shall be included in cost of investment property only when the economic benefits associated with the asset will likely flow to the Group and its cost can be measured reliably. All other subsequent expenditures shall be included in profit or loss for the current period when incurred.

The Group adopts cost method for subsequent measurement of investment property, which is depreciated or amortized using the same policy as that for buildings and land use rights. An investment property is depreciated over its useful life using the straight-line method since the month subsequent to the one in which it is ready for intended use. The useful life, estimated net residual value rate and annual depreciation rate of each category of investment property are as follows:

Category	Useful life	Estimated net residual value rate	Annual depreciation rate
Buildings	20-50 years	5%	1.90%-4.75%

When an investment property is sold, transferred, retired or damaged, the amount of proceeds on disposal of the property net of the carrying amount and related taxes is recognized in profit or loss for the current period.

# Notes to the Financial Statements

For the year ended December 31, 2019

## 15. Fixed assets

### 15.1 Conditions for recognition of fixed assets

Fixed assets are tangible assets that are held for use in the production or supply of goods or services, for rental to others, or for administrative purposes and have a useful life of more than one accounting period. Fixed assets are only recognized when their related economic benefits are likely to flow to the Group and their cost can be reliably measured. Fixed assets are initially measured at cost and the effect of any expected costs of abandoning the asset at the end of its use is considered.

A fixed asset that is ready for its intended use but before the final account for completed project is stated at cost and depreciated based on estimated value, which will be adjusted based on actual cost upon the final account for completed project without adjustment to the depreciation already made.

Nuclear power plant decommissioning cost is recognized in the initial cost of fixed assets based on the discounted amount of the expected decommissioning expense. Two-third of the initial nuclear fueling costs as necessary expenses before the nuclear power plant is ready for its intended use are recognized in the construction cost of the nuclear power plant, and its depreciation is provided under the same method as the nuclear power plant. The remaining initial nuclear fueling costs are recognized in the inventory, and are included in the production cost by installments at the period between the initial fueling and the next refueling based on the on-grid power generation.

Subsequent expenditures incurred for the fixed asset are included in the cost of the fixed asset if it is probable that economic benefits associated with the asset will flow to the Group and the subsequent expenditures can be measured reliably. Meanwhile, the carrying amount of the replaced part is derecognized. Other subsequent expenditures are recognized in profit or loss in the period in which they are incurred.

### 15.2 Method for depreciation of different fixed assets

Fixed assets of the Group include nuclear power facilities and non-nuclear power facilities.

#### 15.2.1 Method for depreciation of nuclear power facilities

Method for classification and depreciation, estimated useful life and estimated net residual value of nuclear power facilities are as follows:

Except for the decommissioning costs of nuclear power facilities that is separately accounted for, other nuclear power facilities are classified into two categories, the nuclear islands, regular islands and auxiliary systems, as well as machinery, electricity, instruments, buildings and structures. Nuclear power facilities are depreciated using the units of production method, except for the buildings and structures that are depreciated using the straight-line method, since the month subsequent to the one in which it is ready for intended use. The net residual value rate of regular islands and auxiliary system machineries is 5%, and the net residual value rate of other fixed-assets categorized as nuclear power facilities is zero.

The estimated useful lives of the nuclear power facilities of the Group are as follows:

Category	Nuclear islands	Regular islands	Auxiliary systems
Machinery	30-60 years	20-30 years	20-30 years
Electricity	15-20 years	15-20 years	15-20 years
Instruments	10-15 years	10-15 years	10-15 years
Buildings	40/60 years	30 years	30 years
Structures	25-60 years	25 years	25 years
Decommissioning costs of nuclear power facilities	40/60 years	N/A	N/A

Calculations of depreciation by the units of production method are as follow:

Current depreciation rate=current actual on-grid power generation ÷ (current actual on-grid power generation + estimated on-grid power generation during remaining depreciation period)

Current depreciation amount=[cost of fixed assets as at the end of the period x (1 – estimated net residual value rate) – depreciated amount as at the beginning of the period – provision of fixed assets impairment] x current depreciation rate

## 15.2 Method for depreciation of non-nuclear power facilities

Non-nuclear power facilities are depreciated over its useful life using the straight-line method since the month subsequent to the one in which it is ready for intended use. The useful life, estimated net residual value rate and annual depreciation rate of fixed assets of non-nuclear power facilities as follows:

Category	Useful life	Estimated net residual value rate	Annual depreciation rate
Building and structure for administration purpose	20-50 years	5%	1.90%-4.75%
Machinery and equipment	5-15 years	5%	6.33%-19%
Transportation vehicles	5 years	5%	19%
Electronic equipment and office facilities	5 years	5%	19%
Vessels	25 years	5%	3.8%

Estimated net residual value of a fixed asset is the estimated amount that the Group would currently obtain from disposal of the asset, after deducting the estimated costs of disposal, if the asset was already of the stage and in the condition expected at the end of its useful life.

## 15.3 Other explanations

If a fixed asset is upon disposal or no future economic benefits are expected to be generated from its use or disposal, the fixed asset is derecognized. When a fixed asset is sold, transferred, retired or damaged, the amount of any proceeds on disposal of the asset net of the carrying amount and related taxes is recognized in profit or loss for the current period.

The Group reviews the useful life and estimated net residual value of a fixed asset and the depreciation method applied at least once at each financial year-end, and account for any change as a change in an accounting estimate.

## 16. Construction in progress

Construction in progress is measured based on the actual cost, including all expenditures incurred for construction projects, capitalized borrowing costs for the construction in progress before it is ready for its intended use, and other related expenses during the construction period. A construction in progress is not depreciated and is transferred to fixed assets when it is ready for its intended use.

## 17. Borrowing costs

Borrowing costs directly attributable to the acquisition, construction or production of qualifying asset are capitalized when expenditures for such asset and borrowing costs are incurred and activities relating to the acquisition, construction or production of the asset that are necessary to prepare the asset for its intended use or sale have commenced. Capitalization of borrowing costs ceases when the qualifying asset being acquired, constructed or produced becomes ready for its intended use or sale. If construction or production of assets qualifying capitalization is interrupted abnormally for a continuous period of more than 3 months, the capitalization of borrowing costs should be ceased until the assets resume construction or production. Other borrowing costs are recognized as an expense in the period in which they are incurred.

Where funds are borrowed under a specific-purpose borrowing, the amount of interest to be capitalized is the actual interest expense incurred on that borrowing for the period less any bank interest earned from depositing the borrowed funds before being used on the asset or any investment income on the temporary investment of those funds. Where funds are borrowed under general-purpose borrowings, the Group determines the amount of interest to be capitalized on such borrowings by applying a capitalization rate to the weighted average of the excess of cumulative expenditures on the asset over the amounts of specific-purpose borrowings. The capitalization rate is the weighted average of the interest rates applicable to the general-purpose borrowings. During the capitalization period, exchange differences related to a specific-purpose borrowing denominated in foreign currency are all capitalized. Exchange differences in connection with general-purpose borrowings are recognized in profit or loss in the period in which they are incurred.

# Notes to the Financial Statements

For the year ended December 31, 2019

## 18. Intangible assets

### 18.1 Intangible assets

Intangible assets include land use rights, software, patent rights, non-patented technology and sea area use rights, etc.

An intangible asset is measured initially at cost. When an intangible asset with a finite useful life is available for use, its original cost less net residual value and any accumulated impairment losses is amortized over its estimated useful life using the straight-line method. An intangible asset with an indefinite useful life is not amortized. The amortization method, years of useful life and net residual value are as follows:

Category	Amortization method	Useful life
Land use rights	Straight-line method	20-50 years
Computer software	Straight-line method	5-10 years
Patent rights	Straight-line method	10 years
Non-patented technology	Straight-line method	10 years
Sea area use rights	Straight-line method	50 years
Others	Straight-line method	10-22 years

The estimated net residual values of intangible assets are zero. The Group shall review the finite useful life of an intangible asset and the amortization method applied at the end of the period and make adjustments when necessary.

### 18.2 Internal research and development expenditure

Expenditure arising from the research phase is accounted for in profit or loss for the current period when incurred.

Expenses incurred during the development stage that satisfy the following conditions are recognized as intangible assets, while those that do not satisfy the following conditions are accounted for in the profit or loss for the current period:

- (1) it is technically feasible that the intangible asset can be used or sold upon completion;
- (2) there is intention to complete the intangible asset for use or sale;
- (3) the intangible asset can produce economic benefits, including there is evidence that the products produced using the intangible asset has a market or the intangible asset itself has a market; if the intangible asset is for internal use, there is evidence that there is usage for the intangible asset;
- (4) there is sufficient support in terms of technology, financial resources and other resources in order to complete the development of the intangible asset, and there is capability to use or sell the intangible asset;
- (5) the expenses attributable to the development stage of the intangible asset can be measured reliably.

If the expenses incurred during the research stage and the development stage cannot be distinguished separately, all research and development expenses incurred are accounted for in the profit or loss for the current period.

## 19. Impairment of long-term assets

The Group assesses at each balance sheet date whether there is any indication that any long-term equity investments, investment properties, fixed assets, construction in progress, right-of-use assets and intangible assets with a finite useful life may be impaired. If there is any evidence indicating that an asset may be impaired, recoverable amount shall be estimated for the individual asset. The intangible assets with infinite useful life and intangible assets that are not ready for intended use are tested for impairment yearly, regardless of any indication of impairment.

The recoverable amount should be estimated of the individual asset. If it is not possible to estimate the recoverable amount of the individual asset, the Group shall determine the recoverable amount of the asset group to which the asset belongs. The recoverable amount of an asset is determined at the higher of the net amount after deducting the disposal expenses from the assets' fair value and the current value of the assets' estimated future cash flow.

If the recoverable amount of an asset is less than its carrying amount, a provision for impairment loss of the asset will be made for the reduction and is charged to profit or loss for the current period.

Goodwill is tested for impairment yearly. When conducting the impairment test for goodwill, the test is conducted through combination with its related asset group or portfolio of asset group. That is, the carrying amount of goodwill is reasonably allocated to the related asset group or each of asset group expected to benefit from the synergies of the combination from the acquisition date. If the recoverable amount of asset group or portfolio of asset group containing the allocated goodwill is lower than its carrying value, relevant impairment loss is recognized. The amount of impairment loss is first written down and allocated to the carrying amount of the goodwill of that asset group or portfolio of asset group, and is then written down to the carrying value of all other types of assets proportionally according to the weighting of the carrying value of all other types of assets other than goodwill within asset group or portfolio of asset group.

When recognizing the impairment loss of contractual costs related assets, other assets in relation to contractual costs that are recognized pursuant to other relevant corporate accounting standards shall take priority. For contractual costs related assets, the Group shall make provisions and recognize an impairment loss to the extent that the carrying amount of an asset exceeds: (1) the remaining amount of consideration that the Company expects to receive in exchange for the goods or services to which the asset relates; (2) the estimated costs that relate to providing those goods or services.

Except for the asset impairment loss related to contractual costs, an impairment loss once recognized shall not be reversed in a subsequent period. The Group shall, after the asset impairment related to contractual costs has been provided, recognized in profit or loss a reversal of the impairment loss previously recognized when the impairment conditions no longer exist or have improved. However, the increased carrying amount of the asset shall not exceed the carrying amount that would have been determined if no impairment loss had been recognized previously.

## 20. Long-term deferred expenses

Long-term deferred expenses are expenses which have incurred but shall be amortized over the current year and subsequent years of more than one year. Long-term deferred expenses are amortized evenly over the estimated benefit period.

## 21. Employee benefits

### 21.1 Accounting treatment of short-term employee benefits

In the accounting period in which employees have rendered services, the Group shall recognize the short-term employee benefits that actually occurred as liability, and charged to profit or loss for the current period or cost of relevant assets. The Group shall recognize the amount of employee welfare that actually occurred and charged to profit or loss for the current period or cost of relevant assets. If the employee welfare expense is non-monetary welfare, it shall be measured according to its fair value.

During the accounting periods which employees rendered service, the Group makes contribution to medical insurance, work-related injury insurance, maternity insurance and other social security contributions and housing provident fund, and extracts for labour union funds and employees' education expenses as stipulated. Based on the required accrual basis and proportions in order to determine the appropriate amount of employee benefits, such employee benefits shall be recognized as corresponding liabilities, and charged to profit or loss during current period or cost of relevant assets.

# Notes to the Financial Statements

For the year ended December 31, 2019

## 21.2 Accounting treatment of post-employment benefits

Post-employment benefits are classified into defined contribution plans and defined benefit plans.

For defined contribution plans, during the accounting periods which employees rendered service, the contribution payable to the plans shall be recognized as liability in profit or loss or as relevant asset cost.

For defined benefit plans, the Group assigns the welfare obligation generated from the defined benefit plans to the period of rendering services using the formula determined by the projected unit credit method, and includes it in the current profit or loss or related asset costs. Employee benefit costs generated from the defined benefit plans are categorized as follows:

- Service cost (including current service cost, past service cost, as well as gains and losses on curtailments and settlements);
- Net interest of net liabilities or net assets of defined benefit plans (including interest income of planned assets, interest expenses of defined benefit plan liabilities and effect of asset ceiling); and
- Remeasurement of changes in net liabilities or net assets of defined benefit plans.

Service cost and net interest of net liabilities or net assets of defined benefit plans are included in the current profit or loss or related asset costs. Remeasurement of changes in net liabilities or net assets of defined benefit plans (including actuarial gains or losses, return on plan assets excluding the amount included in the net interest of net liabilities or net assets of defined benefit plans, and changes to the asset ceiling excluding the amount included in the net interest of net liabilities or net assets of defined benefit plans) is included in other comprehensive income.

Deficit or surplus generated from the present value of the obligation of defined benefit plan less the fair value of defined benefit plan asset is recognized as a net liability or a net asset of defined benefit plan.

## 21.3 Accounting treatment of termination benefits

When the Group provides termination benefits to employees, employee benefit liabilities are recognized for termination benefits, with a corresponding charge to the profit or loss for the period at the earlier of: when the Group cannot unilaterally withdraw the offer of termination benefits because of the termination plan or a curtailment proposal; or when the Group recognizes costs or expenses related to restructuring that involves the payment of termination benefits.

## 21.4 Accounting treatment of other long-term benefits

For other long-term benefits, when meeting the determined conditions for withdrawal and deposit plan, the Group will conduct accounting treatment according to the determined withdrawal and deposit plan. For net liabilities and net assets of other long-term benefits apart from the above, the Group will conduct accounting treatment according to the determined benefit plan. As at the end of the reporting period, employee welfare cost of other long-term employee welfare are recognized as service cost, net interest of net liabilities or net assets of other long-term employee welfare and remeasurement of changes in net liabilities or assets of other long-term employee welfare, and the total amount of which is recognized in profit or loss or as relevant asset cost.

## 22. Provisions

Provisions are recognized when the Group has a present obligation related to a contingency, it is probable that an outflow of economic benefits will be required to settle the obligation, and the amount of the obligation can be measured reliably.

The amount recognized as a provision is the best estimate of the consideration required to settle the present obligation at the balance sheet date, taking into account factors pertaining to a contingency such as the risks, uncertainties and time value of money. Where the effect of the time value of money is material, the best estimate of provision is determined by discounting the related future cash outflows.

Where all or some of the expenditure required to settle a provision is expected to be reimbursed by a third party, the reimbursement is recognized as a separate asset only when it is virtually certain that reimbursement will be received, and the amount of reimbursement recognized does not exceed the carrying amount of the provision.

The Group's provisions shall primarily consist of provision for nuclear power plant decommissioning and provision for low and medium level radioactive waste management.

## 22.1 Provision for nuclear power plant decommissioning

Provision for nuclear power plant decommissioning is the expenses expected to be incurred in the process of the Group putting nuclear reactor systems out of service safely and permanently when they reach the end of their service lives, in order to ensure staff, the public and surrounding ecological environment being not subject to the hazards of the remaining radioactive substance and other potential risks. Provision for nuclear power plant decommissioning is estimated on the basis of best estimate, and the discounted amount shall be included in the initial cost of fixed assets.

## 22.2 Provision for low and medium level radioactive waste management

Provision for low and medium level radioactive waste management is the expenses expected to be incurred in respect of disposal of long-lived low and intermediate level radioactive waste and short-lived low and intermediate level radioactive waste from nuclear power plant. Provision for low and medium level radioactive waste management shall be made on the basis of best estimate by adopting the accrual-basis principle.

## 23. Share-based payment

The share-based payments of the Group are transactions that grant equity instruments or assume equity-instrument based liabilities for receiving services rendered by employees. The share-based payments of the Company are cash-settled share-based payments.

### 23.1 Cash-settled share-based payments

Cash-settled share-based payment is measured at the fair value of liabilities determined on the basis of shares or other equity instruments of the Group. As to a cash-settled share-based payment, if the right may be exercised immediately after the grant, relevant costs and expenses shall be included on the date of the grant, and the liabilities shall be increased accordingly. On each balance sheet date within the vesting period, the services obtained in the current period shall, based on the best estimate of the information about the exercisable right, be included in the relevant costs or expenses and the corresponding liabilities at the fair value of the liability undertaken by the Group. Fair value of the liabilities are remeasured and the changes are stated in profit or loss on each balance sheet date and settlement date before settlement of relevant liabilities.

### 23.2 Accounting treatment of the implementation, modification and termination of share-based payments

If fair value of the granted equity instrument is increased by the Group's modifications to the share-based payment plans, the increase in fair value shall be accordingly recognized in the increase in service obtained. If the quantity of the granted equity instruments is increased by such modifications, the increase in fair value shall be accordingly recognized in the increase in service obtained. Increase in the fair value of equity instrument is the difference between such fair value on the date of modification before and after the modification. If aggregate fair value of share-based payments are reduced by the modification, or that terms and conditions of share-based plan is otherwise modified to the disadvantage of the employees, it is considered that such modification never took place and accounting treatment shall continue to be made for services obtained, unless the granted equity instrument is partially or entirely cancelled by the Group.

During the vesting period, where the granted equity instrument is cancelled, the Group shall accelerate the exercise of rights thereunder, recognizing the outstanding amount for the remainder of the vesting period in profit or loss, while recognizing capital reserve. If employees or other parties can choose to fulfil the non-vesting conditions but have not fulfilled them during the pending period, then the equity-settled share-based payments are dealt with as cancelled.

## 24. Safe production expenses

Safe production expenses are provided by 中廣核工程有限公司China Nuclear Power Engineering Co., Ltd. ("CGN Engineering") under the Measures on the Withholding and Usage of Safety Production Fees of Enterprises (Cai Qi [2012] No.16) (財企[2012]16號《企業安全生產費用提取和使用管理辦法》) jointly issued by the Ministry of Finance and the State Administration of Work Safety on February 14, 2012, recognized in the costs of relevant products or profit or loss and transferred into specific reserves. When such safe production expenses are applied and related to revenue expenditures, specific reserve is directly offset. Where fixed assets are formed from the provision of safe production expenses, expenditure incurred under the collection of items "construction in progress" are recognized as fixed assets when completed safety projects reaching the working condition for its intended use. Meanwhile, specific reserves are written down based on costs of fixed assets formed, and accumulated depreciation of the same amount shall be recognized. No further provision for depreciation shall be made for such fixed assets in subsequent periods.

# Notes to the Financial Statements

For the year ended December 31, 2019

## 25. Revenue recognition

The Group's revenue sources mainly include the following businesses:

- (1) sales of electricity;
- (2) construction, installation and design services;
- (3) provision of labour services;
- (4) sales of goods and others.

When the Group has implemented the performance obligation in the contract, namely, when the customer acquires controls over relevant goods or services, revenues will be recognized as per transaction prices allocated to such performance obligation. Performance obligation represents the Group's commitment to transfer distinct goods or services to the customer in the contract. The transaction price is the amount of consideration to which an entity expects to be entitled in exchange for transferring promised goods or services to a customer, excluding amounts collected on behalf of third parties and amounts expected to be refunded to a customer.

For performance obligations to be satisfied over time, the Group recognizes revenue over time by measuring the progress towards completion if one of the following criteria are met: (1) the customer simultaneously receives and consumes the benefits provided by the Group's performance as the Group performs; (2) the Group's performance creates or enhances an asset that the customer controls as the asset is created or enhanced; (3) the Group's performance does not create an asset with an alternative use to the Group and the Group has an enforceable right to payment for performance completed to date. Otherwise, the Group recognizes revenue when the customer obtains control of the related goods or services.

For performance obligations to be satisfied at a certain point in time, the Group recognizes revenue at the time of acquiring control of such goods. In judging if the customer has acquired control of the goods, the Group takes into consideration: (1) the Group has a present right to payment for the goods, as in the customer has a present obligation to payment for the goods; (2) the Group has transferred the legal ownership of the good to the customer, as in the customer has acquired the legal ownership of the good; (3) the Group has transferred physical possession of the good to the customer, as in the customer is in possession of the physical good; (4) the Group has transferred the major risks and rewards of the ownership of the good to the customer, as in the customer has acquired the major risks and rewards of the ownership of the good to the customer; (5) the customer has accepted the good; and (6) other indications that the customer has acquired control of the good.

For each performance obligation satisfied over time, the Group recognizes revenue over time by measuring the progress towards completion, except when progress cannot be reasonably determined. In determination of the progress towards completion in satisfying such obligations, the Group adopts the input method or output method based on the nature of business. When the performance progress cannot be determined, the Group is expected to be reimbursed for the costs already incurred and recognize the revenue based on the costs already incurred until the performance progress can be reasonably determined.

For sales with quality assurance clause, if an individual service is rendered to the customer under such clause beyond providing the customer with goods or services meeting the established criteria, the quality assurance clause shall constitute a single performance obligation. Otherwise, accounting treatments shall be made according to the quality assurance liability under the Accounting Standards for Business Enterprises No.13 – Contingencies.

The Group judges its status as the main responsible party or proxy in a transaction based on whether the Group had control over the good or service prior to transferring to the customer. Where the Group had control over the good or service prior to transferring to the customer, the Group is the main responsible party, and total received or receivable consideration shall be recognized as revenue; otherwise, the Group is the proxy, and the commission or fee expected to receive shall be recognized as revenue, which is determined by deducting net payable to other parties from the total received or receivable consideration.

For receipt in advance from customers for the provision of good or service, the amount shall initially be recognized as liability, and converted into revenue when relevant performance obligations are satisfied. When it is unnecessary for the Group to return the receipt in advance and the customer may forfeit all or part of his/her contractual rights, and that the Group is entitled to the amount in respect of the contractual rights forfeited by the customer, such amount shall be recognized as revenue in proportion to the pattern of rights exercised by the customer. Otherwise, the Group only recognizes such balance of the above liability as revenue when it becomes highly unlikely that customers would demand the fulfilling of the remaining performance obligation.

## 25.1 Revenue from sales of electricity

Revenue from sales of electricity is the primary component of revenue from sales of goods of the Group. Revenue is recognized when electricity of the Group is transferred to the grids stipulated in the electricity sales contracts, as in when the customer acquires control of the electricity.

## 25.2 Revenue from construction, installation and design services

The Group adopts the input method to appropriately determine the progress to completion of satisfying performance obligation for construction, installation and design services. Input method is a way to determine the progress to satisfying the performance obligation based on the Group's input, for which the Group adopts costs incurred as the indicator of input. Revenue is recognized at the amount calculated by total transaction price under the contract at the date of balance sheet multiplied by progress in satisfying the performance obligation, and further deducting recognized revenue from prior accounting periods. When progress cannot be reasonably determined and the incurred costs is expected to be compensated, revenue is recognized according to costs already incurred until the reasonable determination of progress becomes practicable.

## 25.3 Provision of labour service

The Group adopts the output method to appropriately determine the progress to completion of satisfying performance obligation for the provision of labour services. Output method is a way to determine the progress to satisfying the performance obligation based on the value of goods transferred to the customer, for which the Group adopts milestones reached as the indicator of output. Revenue is recognized at the amount calculated by total transaction price under the contract at the date of balance sheet multiplied by progress in satisfying the performance obligation, and further deducting recognized revenue from prior accounting periods. If the result of labour transaction cannot be reliably estimated, labour revenue is recognized at labour costs already incurred or that which can be compensated, and the labour costs incurred shall be stated as current expense. Labour costs already incurred not expected to be compensated shall not be recognized as revenue.

## 26. Government grants

Government grants are transfer of monetary assets and non-monetary assets from the government to the Group at no consideration. Government grants are recognized when prescribed conditions are satisfied and they will be received without uncertainties.

If a government grant is in the form of a transfer of a monetary asset, it is measured at the amount received or receivable. If a government subsidy is a non-monetary asset, it should be measured at its fair value. If its fair value cannot be obtained in a reliable way, it should be measured at its nominal amount. Government grants measured at nominal amount are directly recognized in profit or loss.

### 26.1 Determination basis and accounting treatment of government grants related to assets

Government grants of the Group primarily include project subsidies for research and development of small reactor and nuclear main pump operation and maintenance technology and test verification platform construction. As such government grants constitute long-term assets, they are considered as government grants related to assets.

A government grant related to an asset is recognized as deferred income, and evenly amortized to current profit or loss over the useful life of the related asset.

### 26.2 Determination basis and accounting treatment of government grants related to income

Government grants of the Group primarily include value-added tax refunds. As value-added tax refunds do not constitute long-term assets, they are considered government grants related to income.

For a government grant related to income, if the grant is a compensation for related expenses or losses to be incurred in subsequent periods, the grant is recognized as deferred income, and recognized in profit or loss over the period in which the related costs or loss are recognized. If the grant is a compensation for related expenses or losses already incurred, the grant is recognized immediately in profit or loss for the current period. If the nature of the government grants are difficult to differentiate, such grants are wholly classified under government grants related to income.

A government grant related to Group's business activities, is recognized as other income based on the substance of economic activities. A government grant non-related to the Group's business activities, is recognized as non-operating income.

For the repayment of a government grant already recognized, if there is any balance of related deferred income, the repayment shall be written-off against the book balance of deferred income, and any excess shall be recognized in profit or loss for the period.

# Notes to the Financial Statements

For the year ended December 31, 2019

## 27. Deferred tax assets/deferred tax liabilities

Income tax expenses include current income tax and deferred income tax.

### 27.1 Current income tax

At the balance sheet date, current income tax liabilities (or assets) for the current and prior periods shall be measured at the amount expected to be paid (or recovered) according to the requirements of tax laws.

### 27.2 Deferred tax assets and deferred tax liabilities

For temporary differences between the carrying amounts of certain assets or liabilities and their tax base, or between the nil carrying amount of those items that are not recognized as assets or liabilities and their tax base that can be determined according to tax laws, deferred tax assets and liabilities are recognized using the balance sheet liability method.

Deferred tax is generally recognized for all temporary differences. Deferred tax assets for deductible temporary differences are recognized to the extent that it is probable that taxable profits will be available against which the deductible temporary differences can be utilized. However, for temporary differences associated with the initial recognition of goodwill and the initial recognition of an asset or liability arising from a transaction (not a business combination) that affects neither the accounting profit nor taxable profits (or deductible losses) at the time of transaction, no deferred tax asset or liability is recognized.

For deductible losses and tax credits that can be carried forward, deferred tax assets are recognized to the extent that it is probable that future taxable profits will be available against which the deductible losses and tax credits can be utilized.

Deferred tax liabilities are recognized for taxable temporary differences associated with investments in subsidiaries and associates, and interests in joint ventures, except where the Group is able to control the timing of the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future. Deferred tax assets arising from deductible temporary differences associated with such investments and interests are only recognized to the extent that it is probable that there will be taxable profits against which to utilize the benefits of the temporary differences and they are expected to reverse in the foreseeable future.

At the balance sheet date, deferred tax assets and liabilities are measured at the tax rates, according to tax laws, that are expected to apply in the period in which the asset is realized or the liability is settled.

Current and deferred tax expenses or income are recognized in profit or loss for the period, except when they arise from transactions or events that are directly recognized in other comprehensive income or in shareholders' equity, in which case they are recognized in other comprehensive income or in shareholders' equity; and when they arise from business combinations, in which case they adjust the carrying amount of goodwill.

At the balance sheet date, the carrying amount of deferred tax assets is reviewed and reduced if it is no longer probable that sufficient taxable profits will be available in the future to allow the benefit of deferred tax assets to be utilized. Such reduction in amount is reversed when it becomes probable that sufficient taxable profits will be available.

### 27.3 Offsetting of income tax

When the Group has a legal right to settle on a net basis and intends either to settle on a net basis or to realize the assets and settle the liabilities simultaneously, current tax assets and current tax liabilities of the Group are offset and presented on a net basis.

When the Group has a legal right to settle current tax assets and liabilities on a net basis, and deferred tax assets and deferred tax liabilities relate to income taxes levied by the same taxation authority on either the same taxable entity or different taxable entities which intend either to settle current tax assets and liabilities on a net basis or to realize the assets and liabilities simultaneously, in each future period in which significant amounts of deferred tax assets or liabilities are expected to be reversed, deferred tax assets and deferred tax liabilities are offset and presented on a net basis.

## 28. Leases

A lease refers to a contract in which a lessor assigns the right to use an asset to a lessee within a certain period of time to obtain consideration.

At the commencement date of a contract, the Group evaluates whether the contract is a lease or contains a lease. Unless the contract terms and conditions change, the Group does not reassess whether the contract is a lease or contains a lease.

## 28.1 The Group as a lessee

### 28.1.1 Allocation of leases

For a contract that contains one or more lease component and non-lease components, the Group allocates the consideration in the contract to each lease component on the basis of the relative standalone price of the lease component and the aggregate standalone price of the non-lease components.

### 28.1.2 Right-of-use assets

Except for short-term leases and leases of low value assets, the Group recognizes right-of-use assets at the commencement date of the lease (i.e. the date the underlying asset provided by the lessor is available for use by the Group). The right-of-use asset is initially measured at cost. This cost includes:

- the initial measurement amount of the lease liabilities;
- any lease payments made at or before the commencement date of the lease, less any lease incentives received;
- any initial direct costs incurred by the Group;
- an estimate of costs to be incurred by the Group in dismantling and removing the underlying assets, restoring the site on which it is located or restoring the underlying asset to the condition required by the terms and conditions of the lease.

The Group makes provisions for depreciation of right-of-use assets according to the relevant depreciation requirements in the Accounting Standards for Business Enterprises No. 4 – Fixed Assets. Right-of-use assets in which the Group is reasonably certain to obtain ownership of the underlying leased assets at the end of the lease term is depreciated from commencement date to the end of the useful life. Otherwise, right-of-use assets are depreciated over the shorter of its estimated useful life and the lease term.

The Group determines whether a right-of-use asset has been impaired in accordance with the Accounting Standards for Business Enterprises No. 8 – Asset Impairment and accounts for the identified impairment losses.

### 28.1.3 Lease liabilities

At the commencement date of a lease, the Group initially measures the lease liabilities at the present value of lease payments that are unpaid at that date, except for short-term leases and low-value asset leases. In calculating the present value of lease payments, the Group uses the interest rate implicit in the lease as the discount rate. If the interest rate implicit in the lease is not readily determinable, the incremental borrowing rate is used as the discount rate.

Lease payment refers to the amount paid by the Group to the lessor relating to the right to use an underlying asset during the lease term, including:

- fixed payments and in-substance fixed payments less any lease incentives receivable;
- variable lease payments that depend on an index or a rate;
- the exercise price of a purchase option reasonably certain to be exercised by the Group;
- payments of penalties for terminating a lease, if the lease term reflects the Group exercising the option to terminate;
- amounts expected to be paid under residual value guarantees.

After the commencement date of the lease term, the Group calculates the interest expense of the lease liabilities for each period of the lease term based on a fixed periodic interest rate, and included it in the current profit or loss or the cost of underlying assets.

After the commencement date of the lease term, the Group re-measures the lease liabilities and adjusts the corresponding right-of-use asset in the following circumstances. If the carrying value of the right-of-use asset has been reduced to zero, but the lease liability still needs to be further reduced, the Group will calculate the difference into the current profit or loss:

- The Group re-measures the lease liabilities based on the present value of the post-change lease payments and the revised discount rate as a result of changes in the lease term or changes in the purchase option;
- The Group re-measures the lease liabilities based on the present value of the changed lease payments and the original discount rate, based on the amount of the amount payable or the index or proportion used to determine the lease payments.

# Notes to the Financial Statements

For the year ended December 31, 2019

## 28.1.4 Short-term leases and leases of low-value assets

The Group decides not to recognize right-of-use assets and lease liabilities for short-term leases of buildings and structures and leases of low-value assets. Short-term leases are leases that have a lease term of 12 months or less from the commencement date and do not contain a purchase option. A lease of low value asset refers to a single lease asset, when new, is of low value. Lease payments on short-term leases and leases of low-value assets are recognized in the current profit or loss or the cost of underlying assets on a straight-line basis over the lease term.

## 28.1.5 Lease modifications

The Group accounts for a lease modification:

- the modification increases the scope of the lease by adding the right to use one or more underlying assets;
- the consideration for the leases increases by an amount commensurate with the stand-alone price for the increase in scope and any appropriate adjustments to that stand-alone price to reflect the circumstances of the particular contract.

For a lease modification that is not accounted for as a separate lease, the Group remeasures the lease liability based on the lease term of the modified lease by discounting the revised lease payments using a revised discount rate at the effective date of the modification.

If the modification of lease results in a narrower scope of lease or a shorter lease term, the Group reduces the carrying value of the right-of-use assets to reflect the partial or complete termination of the lease. The Group recognizes the gain or loss relevant to the partial or complete termination of the leases in the current profit or loss. For other modification of lease, the Group adjusts the carrying value of the right-of-use assets accordingly.

## 28.2 The Group as a lessor

### 28.2.1 Allocation of leases

Where the contract includes both the lease and non-lease components, the Group apportions the contract consideration according to the provisions of the Accounting Standards for Business Enterprises No. 14 – Revenue on the transaction price sharing. The basis of the apportionment is the individual selling price of the leased part and the non-lease part.

### 28.2.2 Classification of leases

A lease that substantially transfers almost all the risks and rewards related to the ownership of leased assets is a financial lease. Leases other than financial leases are operating leases.

#### 28.2.2.1 The Group records the operating lease business as a lessor

During each period of the lease term, the Group uses the straight-line method to recognize the lease payments from operating leases as rental income. The initial direct costs incurred by the Group in relation to the operating leases are capitalized at the time of the acquisition, allocated on the basis same as the recognition of rental income over the lease term and are recognized in profit or loss by tranches.

The variable lease payments received by the Group in connection with the operating leases that are not included in the lease payments are recognized in profit or loss in the period in which they are incurred.

## 29. Changes in significant accounting policies and accounting estimates

### 29.1 Changes in accounting policies

#### 29.1.1 New Standards for Lease

From January 1, 2019 (the “date of initial adoption”), the Group commenced the adoption of the Accounting Standards for Business Enterprises No. 21 – Leases 《企業會計準則第21號 – 租賃》 (the “New Standards for Leases”), which was revised by the Ministry of Finance in 2018. The New Standards for Leases improved the definition of lease and added the identification, split and consolidation of leases; cancelled the classification of operating leases and finance leases of the lessee, and required right-of-use assets and lease liabilities to be recognized for all leases (except short-term leases and leases of low-value assets) at the beginning of leases and depreciation and interest expenses to be recognized respectively. Also, it improved lessee’s subsequent measurement of leases, added accounting treatment under the scenarios of option revaluation and modification of lease; and increased the related disclosure requirements. In addition, the disclosure requirements for the lessor were also added. For the revised accounting policy of the Group as a lessee and lessor on the recognition and measurement of leases, please see Note (III) 28 “Leases”.

For contracts subsisting prior to the date of initial adoption, the Group has elected, at the date of initial adoption, not to reassess whether such contracts are leases or contain a lease.

##### The Group as a lessee

The Group shall, based on the cumulated affected amounts for the initial adoption of the New Standards for Leases, adjust the retained earnings and the amount of other relevant items in financial statements at the date of initial adoption, and shall not adjust the information of the comparative period.

For operating leases other than low-value leases prior to the date of initial adoption, the Group has decided to adopt one or a number of the following simplified approaches based on each lease:

- for a lease that would be completed within 12 months from the date of initial adoption, it was treated as a short-term lease;
- the same discount rate was applied to the leases with similar characteristics in measuring the lease liabilities;
- the measurement of right-of-use assets did not include initial direct costs;
- the use of hindsight before the date of initial adoption in determining the lease term where the contract contains options to extend or terminate the lease;
- the Group relied on previous assessments on whether leases are onerous applying the Accounting Standards for Business Enterprises No.13 – Contingencies immediately before the date of initial adoption as an alternative to performing an asset impairment test, and adjusted right-of-use assets based on the provision for loss included in the balance sheet before the date of initial adoption;
- the Group conducted accounting treatment based on the final arrangement of the lease modification for modification of leases before the date of initial adoption.

On the date of initial adoption, the Group has made the following adjustments due to the implementation of the New Standards for Leases: for the operating lease before the date of initial adoption, the lease liabilities are recognized according to the present value of outstanding lease payments discounted by the incremental borrowing interest rate determined by the lessee on the date of initial adoption. And the right-of-use assets is measured according to one of the following for each lease:

- the carrying value assuming the adoption of the New Standards for Leases on the date of commencement of leases (using the incremental borrowing interest rate determined by the lessee on the date of initial adoption);
- the amount equal to the lease liabilities adjusted by the lease prepayments if necessary.

On January 1, 2019, the Group recognized lease liabilities of RMB826,483,276.87 and right-of-use assets of RMB1,202,135,473.97. For operating leases before the date of initial adoption, the Group used the present value discounted by the incremental borrowing interest rate on the date of initial adoption to measure lease liabilities. The weighted average of these incremental borrowing interest rate was 4.66%.

# Notes to the Financial Statements

For the year ended December 31, 2019

The impacts of the adoption of the New Standards for Leases on relevant items on the consolidated balance sheet as at January 1, 2019 are as follows:

Unit: RMB

Item	December 31, 2018	Adjustment	January 1, 2019
<b>Current assets:</b>			
Prepayments	5,128,948,753.87	(39,725,475.46)	5,089,223,278.41
Other receivables	519,127,589.11	(363,594.11)	518,763,995.00
<b>Non-current assets:</b>			
Right-of-use assets	–	1,202,135,473.97	1,202,135,473.97
Long-term deferred expenses	1,734,658,492.05	(57,615,631.40)	1,677,042,860.65
<b>Current liabilities:</b>			
Non-current liabilities due within one year	18,853,766,355.93	277,947,496.13	19,131,713,852.06
<b>Non-current liabilities:</b>			
Lease liabilities	–	826,483,276.87	826,483,276.87

The difference between the lease liabilities recognized by the Group on January 1, 2019 and the major operating lease commitments disclosed in the 2018 financial statements is as follows:

Unit: RMB

Item	Amount
I. Operating lease commitments as at December 31, 2018	1,457,241,881.25
Lease liabilities measured at the incremental borrowing interest rate on the date of initial adoption	1,214,026,192.83
Less: Short-term leases, low-value asset leases, and leases completed within 12 months after the date of initial adoption	42,213,096.76
Effect of VAT	67,382,323.07
Lease liabilities related to the original operating lease recognized in the adoption of the New Standards for Leases	1,104,430,773.00
II. Lease liabilities as at January 1, 2019	1,104,430,773.00
Including: Non-current liabilities due within one year	277,947,496.13
Lease liabilities	826,483,276.87

The composition of carrying value of the right-of-use assets as at January 1, 2019 is as follows:

Unit: RMB

Item	Note	Amount
Right-of-use assets recognized for operating leases before the date of initial adoption		1,104,430,773.00
Reclassification of rental prepayments	1	97,704,700.97
Total		1,202,135,473.97

Note 1: The rental prepayments of the Group's leased buildings and structures of RMB39,725,475.46 was presented as a prepayment as at December 31, 2018. The rental prepayments of RMB363,594.11 was presented as other receivables as at December 31, 2018. The long-term lease prepayments for land of RMB57,615,631.40 was presented as long-term deferred expenses as at December 31, 2018. On the date of initial adoption, the Group reclassified the above-mentioned rental prepayments to right-of-use assets.

The right-of-use assets as at January 1, 2019 are disclosed by category as follows:

Unit: RMB

Item	Amount
Buildings and structures	1,202,135,473.97

### 29.1.2 New Standards for Exchange of Non-monetary Assets

On May 9, 2019, the Ministry of Finance issued the revised Accounting Standards for Business Enterprises No.7 – Exchange of Non-monetary Assets (Cai Kuai [2019] No. 8) (the "New Standards for Exchange of Non-monetary Assets"), which was effective on June 10, 2019. The New Standards for Exchange of Non-monetary Assets revised the definition of non-monetary assets exchange, clarified the application scope of the standard, specified the point of time of recognition and derecognition of assets exchanges, and provided accounting treatment principles in circumstances where the recognition time points of recognition and derecognition are inconsistent. It also refined the accounting treatment for the non-monetary assets exchange and increased requirements about disclosure. The implementation of the New Standards for Exchange of Non-monetary Assets did not affect the current financial statements of the Group.

### 29.1.3 New Standards for Debt Restructuring

On May 16, 2019, The Ministry of Finance issued the revised Accounting Standards for Business Enterprises No. 12 – Debt Restructuring (Cai Kuai [2019] No. 9) (the "New Standards for Debt Restructuring"), which was effective on June 17, 2019. The New Standards for Debt Restructuring revised the definition of debt restructuring, clarified the application scope of the standard, revised the accounting treatment of debt restructuring and simplified the disclosure requirements for debt restructuring. The implementation of the New Standards for Debt Restructuring did not affect the current financial statements of the Group.

### 29.1.4 Format of Presentation of Financial Statement

The Group prepared the 2019 annual financial statements in accordance with the Notice of the Revised Format of Financial Statements for General Business Enterprises for 2019 (Cai Kuai [2019] No. 6, the "Cai Kuai No. 6 Document") (《關於修訂印發2019年度一般企業財務報表格式的通知》(財會[2019]6號)) promulgated by the Ministry of Finance on April 30, 2019. The Cai Kuai No. 6 Document revised the reporting items in the balance sheet and income statement by splitting the items of "bills receivable and accounts receivable" into "bills receivable" and "accounts receivable" and "bills payable and accounts payable" into "bills payable" and "accounts payable". At the same time, it specified or revised the reporting contents of sub-line items of "interest income", "other gains", "gains (losses) from assets disposal", "non-operating income" and "non-operating expenses" under the items of "non-current liabilities due within one year", "deferred income", "other investment in equity instruments", "R&D expenses" and "finance costs", adjusted the location of the item of "asset impairment losses", and specified the reporting contents of the item of "capital investment from holders of other equity instruments". For the changes to the above-mentioned reporting items, the Group retrospectively adjusted the comparative data for the previous year.

# Notes to the Financial Statements

For the year ended December 31, 2019

## (IV) TAXATION

### 1. Main tax categories and tax rates

	Taxation basis	Tax rate
Value-added tax (VAT)	(Note 1)	3%, 5%, 6%, 9%, 10%, 11%, 13%, 16%, 17%
Education surcharges	Paid-in VAT and business tax	3%
Local education surcharges	Paid-in VAT and business tax	2%
Urban maintenance and construction tax	Paid-in VAT and business tax	1%, 5%, 7%
Real estate tax	Tax basis under relevant tax law (Note 2)	1.2% or 12%
Enterprise income tax	Taxable income	25%, 20%, 15%, 5%

Note 1: VAT payable is output tax minus deductible input tax, and the output tax is calculated based on sales and VAT tax rate as determined by relevant tax law.

The revenue from sales of electricity of the subsidiaries of the Company, namely Guangdong Nuclear Power Investment Co., Ltd. ("GNIC"), GNPJVC, Yangxi Nuclear Power Limited (陽西核電有限公司), Fujian Ningde Nuclear Power Co., Ltd. (福建寧德核電有限公司) ("Ningde Nuclear"), Ling'ao Nuclear Power Co., Ltd. (嶺澳核電有限公司) ("Ling'ao Nuclear"), Lingdong Nuclear Power Co., Ltd. (嶺東核電有限公司) ("Lingdong Nuclear"), Yangjiang Nuclear Power Co., Ltd. (陽江核電有限公司) ("Yangjiang Nuclear"), Taishan Nuclear Power Joint Venture Co., Ltd. (台山核電合營有限公司) ("Taishan Nuclear"), Guangxi Fangchenggang Nuclear Power Co., Ltd. (廣西防城港核電有限公司) ("Fangchenggang Nuclear") and CGN Power Sales Co., Ltd. (中廣核電力銷售有限公司) ("Power Sales Company"), was subject to VAT. The revenue from sales of goods or equipment of the subsidiaries of the Company, namely China Nuclear Power Technology Research Institute (中廣核研究院有限公司), Suzhou Nuclear Power Research Institute (蘇州熱工研究院有限公司) ("SNPRI"), China Nuclear Power (Beijing) Simulation Technology Corporation Ltd. (中廣核(北京)仿真技術有限公司) ("CNPSTC"), CGN Engineering, China Nuclear Power Design Co., Ltd. (Shenzhen) (深圳中廣核工程設計有限公司) ("CGN Design"), GNPJVC, Ningde Nuclear, Ling'ao Nuclear, Lingdong Nuclear, Yangjiang Nuclear, Taishan Nuclear, Fangchenggang Nuclear, CGN Nuclear Power Operations Limited Company (中廣核核電運營有限公司), CGN Inspection Technology Co., Ltd. (中廣核檢測技術有限公司) (the "Inspection Company"), China Nuclear Power (Shenzhen) Radiation Monitoring Technology Co., Ltd. (中廣核(深圳)輻射監測技術有限公司), Worldwide Engineering CGNPC AREVA Nuclear Co., Ltd. (中核國際核能工程有限公司) and CGN Import & Export Co., Ltd. (中廣核電進出口有限公司) was subject to VAT. The VAT tax rate for the period from January 1 to April 30, 2018 was 17%. The VAT tax rate for the period from May 1, 2018 to March 31, 2019 was 16%. The VAT tax rate for the period from April 1 to December 31, 2019 was 13%.

Revenue from newspaper and magazine publication of SNPRI, a subsidiary of the Company, was subject to VAT. The VAT tax rate for the period from January 1 to April 30, 2018 was 11%. The VAT tax rate for the period from May 1, 2018 to March 31, 2019 was 10%. The VAT tax rate for the period from April 1 to December 31, 2019 was 9%.

Revenue from the production and supply of thermal power of Hebei Zhongzhuang Clean Thermal Energy Co., Ltd. (河北中莊清潔熱能有限公司), a subsidiary of the Company, was subject to VAT. The VAT tax rate for the period from January 1 to April 30, 2018 was 11%. The VAT tax rate for the period from May 1, 2018 to March 31, 2019 was 10%. The VAT tax rate for the period from April 1 to December 31, 2019 was 9%.

Revenue from technical service of the subsidiaries of the Company, namely CNPRI, CNPSTC, SNPRI, China Nuclear Power (Shenzhen) Radiation Monitoring Technology Co., Ltd. (中廣核(深圳)輻射監測技術有限公司), Inspection Company, CGN Engineering, CGN Design, Worldwide Engineering CGNPC AREVA Nuclear Co., Ltd. (中核國際核能工程有限公司), Guangdong Daya Bay Nuclear Power Environment Protection Co., Ltd. (廣東大亞灣核電環保有限公司) and China Nuclear Power Operations Co., Ltd. (中廣核核電運營有限公司) was subject to VAT at 6%.

Revenue from construction contracts of CGN Engineering, a subsidiary of the Company, was subject to a simple levy rate at 3%, while revenue from other construction contracts from January 1, 2018 to April 30, 2018 was subject to tax rate at 11% (which was changed to 10% from May 1, 2018 and further changed to 9% from April 1, 2019) instead of business tax at 3% or 5%. Entrusted loan interest income of the subsidiaries of the Company, namely Fangchenggang Nuclear, Lingdong Nuclear, Ling'ao Nuclear, SNPRI, GNIC, China Nuclear Power (Shenzhen) Radiation Monitoring Technology Co., Ltd. (中廣核(深圳)輻射監測技術有限公司), China Nuclear Power Operations Co., Ltd. (中廣核核電運營有限公司), the Inspection Company and GNPJVC, was subject to VAT at 6%. Entrusted loan interest income of Guangxi Fangchenggang CGN Nuclear Power Industry Investment Co., Ltd. (廣西防城港中廣核核電產業投資有限公司) ("Fangchenggang Investment"), a subsidiary of the Company, was subject to VAT at 3% for entrusted loan as a small taxpayer from February 28, 2018 (the date of establishment), and was then subject to VAT at 6% for entrusted loan as a general taxpayer from January 1, 2019. The real estate rental income of the subsidiaries of the Company, namely the Inspection Company, CNIC, Ling'ao Nuclear, GNPJVC, Lingdong Nuclear, SNPRI, Inspection Company, China Nuclear Power Technology Research Institute (中廣核研究院有限公司) and CGN Engineering, was subject to VAT at 5% using a simple tax computation method. Training income of the subsidiaries of the Company, namely Daya Bay Nuclear Power Operations and Management Co., Ltd. (大亞灣核電運營管理有限責任公司) ("DNMC") and China Nuclear Power Operations Co., Ltd. (中廣核核電運營有限公司) was subject to VAT at 6%.

Revenue from the labour dispatch service of DNMC, a subsidiary of the Company, was subject to VAT at 5% using a simple tax computation method from January 1, 2018 to May 31, 2019, and was subject to VAT at 6% using a general tax computation method from June 1, 2019 to December 31, 2019.

The Company's subsidiaries, namely Taishan Nuclear Power Industry Investment Co., Ltd. (台山核電產業投資有限公司) ("Taishan Investment"), CGN Ninghe Investment Co., Ltd. (中廣核寧核投資有限公司) and CGN Nuclear Power Investment Co., Ltd. (中廣核核電投資有限公司), were subject to VAT at 3% of taxable income of small-scale taxpayers under the tax law.

The Company's subsidiaries, namely Fujian Ninghe Power Sales Co., Ltd. (福建寧核售電有限公司) and Guangxi Fanghe Power Sale Co., Ltd. (廣西防核售電有限公司), were small-scale VAT taxpayers with a monthly sales less than RMB0.1 million, and were exempt from VAT.

Note 2: Self-occupied properties are subject to tax at 1.2% per year, with real estate residual value after a one-time deduction of 10%-30% depletion as tax basis; while leased properties are subject to tax at 12% per year, with the full year lease income as tax basis.

## 2. Tax preference

### VAT “levy first, refund later” policy

Pursuant to the Circular on Relevant Issues Concerning Taxation in Nuclear Power Industry (Cai Shui [2008] No. 38) 《關於核電行業稅收政策有關問題的通知》(財稅[2008]38號) issued by the Ministry of Finance and State Administration of Taxation, sales of electrical products of the Company’s subsidiaries, namely Ling’ao Nuclear, Lingdong Nuclear, Yangjiang Nuclear, Fangchenggang Nuclear, Ningde Nuclear and Taishan Nuclear, were entitled to the VAT “levy first, refund later” policy within 15 years from the second month to the commencement of commercial production of their power generating units, with the refund ratio gradually decreasing in three phases. Within 5 years from the second month to the commencement of commercial production, refund ratio is 75% of deposited tax; between 6 to 10 years from the second month to the commencement of commercial production, refund ratio is 70% of deposited tax; and between 11 to 15 years from the second month to the commencement of commercial production, refund ratio is 55% of deposited tax. After 15 years from the second month to the commencement of commercial production, the “levy first, refund later” policy is no longer applicable.

### Investment tax preferential policy for public infrastructure projects

Pursuant to the Notice on the Execution of the Catalogue of Public Infrastructure Projects Entitled for Tax Benefit (Cai Shui [2008] No. 46) issued by the Ministry of Finance and the State Administration of Taxation and the Supplementary Notice of Tax Benefit Scheme in relation to Public Infrastructure Project (Cai Shui [2014] No. 55), as Yangjiang Nuclear, Fangchenggang Nuclear, Ningde Nuclear, Taishan Nuclear and CGN Lufeng Nuclear Power Co., Ltd. (中廣核陸豐核電有限公司) (“Lufeng Nuclear”) falls under the Tax Benefit Scheme in relation to the Investment in and Operation of Key Public Infrastructure Projects Supported by the State, these companies were entitled to EIT exemption for three years followed by 50% exemption for the next three years commencing from their first revenue generating year.

Yangjiang Unit 1 and Unit 2 were subject to EIT at 12.5% for 2018 and 2019; Unit 3 was entitled to EIT exemption for 2018, and was subject to EIT at 12.5% for 2019; Unit 4 and Unit 5 were entitled to EIT exemption for 2018 and 2019. Yangjiang Unit 6 was entitled to EIT exemption for 2019.

Fangchenggang Unit 1 and Unit 2 were entitled to EIT exemption for 2018, and were subject to EIT at 7.5% for 2019.

Ningde Unit 1 was subject to EIT at 12.5% for 2018, and was subject to EIT at 25% for 2019; Unit 2 and Unit 3 were subject to EIT at 12.5% for 2018 and 2019; and Unit 4 was entitled to EIT exemption for 2018, and was subject to EIT at 12.5% for 2019.

Taishan Unit 1 and Unit 2 commenced commercial production in December 2018 and September 2019 respectively, and were entitled to EIT exemption for 2019.

As at December 31, 2019, Lufeng Nuclear had not yet generated operating revenue.

### Preferential tax policy for high-tech enterprises

On June 19, 2015, GNPJVC was recognized as a national high-tech enterprise, and obtained a High-Tech Enterprise Certificate 《高新技術企業證書》(GR201544200288) with a validity of three years. On October 16, 2018, GNPJVC was again recognized as a national high-tech enterprise, and obtained a High-Tech Enterprise Certificate 《高新技術企業證書》(GR201844202215) with a validity of three years. GNPJVC paid EIT at 15% for 2018 and 2019.

# Notes to the Financial Statements

For the year ended December 31, 2019

On November 21, 2016, Ling'ao Nuclear was recognized as a national high-tech enterprise, and obtained a High-Tech Enterprise Certificate 《高新技術企業證書》(GR201644201738) with a validity of three years. The 2019 High-Tech Enterprise Certificate 《高新技術企業證書》(GR201944200999) has been announced on the high-tech enterprise certification management work network. Ling'ao Nuclear paid EIT at 15% for 2018 and 2019.

On December 1, 2017, Lingdong Nuclear was recognized as a national high-tech enterprise, and obtained a High-Tech Enterprise Certificate 《高新技術企業證書》(GR201744205073) with a validity of three years. Lingdong Nuclear paid EIT at 15% for 2018 and 2019.

On October 31, 2017, CNPRI was again recognized as a national high-tech enterprise, and obtained a High-Tech Enterprise Certificate 《高新技術企業證書》(GR201744203194) with a validity of three years. CNPRI paid EIT at 15% for 2018 and 2019.

On December 22, 2016, CNPSTC was recognized as a national high-tech enterprise, and obtained a High-Tech Enterprise Certificate 《高新技術企業證書》(GR201611006000) with a validity of three years. The 2019 High-Tech Enterprise Certificate 《高新技術企業證書》(GR201911008275) has been announced on the high-tech enterprise certification management work network. CNPSTC paid EIT at 15% for 2018 and 2019.

On November 17, 2017, SNPRI was recognized as a national high-tech enterprise, and obtained a High-Tech Enterprise Certificate 《高新技術企業證書》(GR201732000370) with a validity of three years. SNPRI paid EIT at 15% for 2018 and 2019.

On October 31, 2017, the Inspection Company was recognized as a national high-tech enterprise, and obtained a High-Tech Enterprise Certificate 《高新技術企業證書》(GR201744203105) with a validity of three years. The Inspection Company paid EIT at 15% for 2018 and 2019.

On August 17, 2017, China Nuclear Power (Shenzhen) Radiation Monitoring Technology Co., Ltd. (中廣核(深圳)輻射監測技術有限公司) was recognized as a national high-tech enterprise, and obtained a High-Tech Enterprise Certificate 《高新技術企業證書》(GR201744200760) with a validity of three years. China Nuclear Power (Shenzhen) Radiation Monitoring Technology Co., Ltd. paid EIT at 15% for 2018 and 2019.

On November 21, 2016, CGN Engineering was recognized as a national high-tech enterprise, and obtained a High-Tech Enterprise Certificate 《高新技術企業證書》(GR201644203168) with a validity of three years. The 2019 High-Tech Enterprise Certificate 《高新技術企業證書》(GR201944205623) has been announced on the high-tech enterprise certification management work network. CGN Engineering paid EIT at 15% for 2018 and 2019.

On November 9, 2018, CGN Design was recognized as a national high-tech enterprise, obtaining a High-Tech Enterprise Certificate 《高新技術企業證書》(GR201844203078) with a validity of three years. CGN Design paid EIT at 15% for 2018 and 2019.

On December 18, 2019, China Nuclear Power Operations Co., Ltd. (中廣核核電運營有限公司) was recognized as a national high-tech enterprise, and obtained a High-Tech Enterprise Certificate 《高新技術企業證書》(GR201944205802) with a validity of three years. China Nuclear Power Operations Co., Ltd. (中廣核核電運營有限公司) paid EIT at 15% for 2019.

## Other preferential tax policies

Pursuant to the Notice of the Ministry of Finance and State Administration of Taxation on Implementation of Preferential Enterprise Income Tax Policies (Cai Shui [2009] No. 69) 《財政部、國家稅務總局關於執行企業所得稅優惠政策若干問題的通知》(財稅[2009]69號)) and the Notice of the State Administration of Taxation on Issues concerning Enterprise Income Tax in Further Implementing the Western Development Strategy (SAT [2012] No.12) 《國家稅務總局關於深入實施西部大開發戰略有關企業所得稅問題的公告》(國家稅務總局公告2012年第12號)), as Fangchenggang Nuclear simultaneously meets the conditions of the western development tax preferential policy, and those for investment of public infrastructure projects, therefore it was entitled to both tax preferential policies with EIT exemption for 2018 and was subject to EIT at 7.5% for 2019.

Pursuant to the Notice on Issues Concerning the Implementation of the Catalog of Enterprise Income Tax Preference for Equipment Specialized for Environmental Protection, the Catalog of Enterprise Income Tax Preference for Equipment Specialized for Energy and Water Conservation and the Catalog of Enterprise Income Tax Preference for Equipment Specialized for Production Safety (Cai Shui [2008] No. 48) 《關於執行環境保護專用設備企業所得稅優惠目錄、節能節水專用設備企業所得稅優惠目錄和生產安全專用設備企業所得稅優惠目錄有關問題的通知》(財稅[2008]48號)), equipment purchased and put into actual service by Ningde Nuclear specialized for environmental protection, energy and water conservation and production safety may offset EIT payable of the current year by 10% of the specialized equipment investment. If tax payable of the current year is insufficient for the offset, the amount may be carried down to subsequent years not exceeding five taxable years.

Pursuant to the PRC Enterprise Income Tax Law and the Notice on Inclusive Tax Relief Tax Policies for Small Profit-making Enterprises (Cai Shui [2019] No. 13) 《關於實施小微企業普惠性稅收減免政策的通知》(財稅[2019]13號)), CGN Ocean Power Co., Ltd. (中廣核海洋能源有限公司) ("Ocean Power"), CGN Hebei Thermal Power Co., Ltd. (中廣核河北熱電有限公司) ("Hebei Thermal Power") and Sansha Advanced Energy Co., Ltd. (三沙先進能源有限公司) were qualified as a small profit-making enterprise fitting the criteria. Ocean Power and Hebei Thermal Power were subject to EIT at 20% for 2018 and 2019. Sansha Advanced Energy Co., Ltd. (三沙先進能源有限公司) was subject to EIT at 20% for the period from August 31 (date of incorporation) to December 31, 2018 and for 2019.

Pursuant to the PRC Enterprise Income Tax Law and the Notice on Inclusive Tax Relief Tax Policies for Small Profit-making Enterprises (Cai Shui [2019] No. 13) 《關於實施小微企業普惠性稅收減免政策的通知》(財稅[2019]13號)), Fujian Ninghe Power Sales Co., Ltd. (福建寧核售電有限公司) and Guangxi Fanghe Power Sale Co., Ltd. (廣西防核售電有限公司) were qualified as a small profit-making enterprise fitting the criteria. Fujian Ninghe Power Sales Co., Ltd. (福建寧核售電有限公司) was subject to EIT at 5% for the period from June 4 (date of incorporation) to December 31, 2019. Guangxi Fanghe Power Sale Co., Ltd. (廣西防核售電有限公司) was subject to EIT at 20% for the period from September 3 (date of incorporation) to December 31, 2019.

Pursuant to the Notice of the Ministry of Finance on Taxation Issues Concerning Imported Equipment for Third-generation Nuclear Power Projects (Cai Guan Shui [2013] No. 15) 《財政部關於三代核電項目進口設備有關稅收問題的通知》(財關稅[2013]15號)), the tariff and import value-added tax on imported equipment for the first phase nuclear power project of Taishan Nuclear were uniformly reduced to 56% of the tax payable prior to the project completion acceptance.

Pursuant to the Notice of the State Council on Further Promulgation of Various Policies in order to Encouraging the Development of Software and Integrated Circuit Industries (Guo Fa [2011] No. 4) 《國務院關於印發進一步鼓勵軟件產業和集成電路產業發展若干政策的意見》(國發[2011]4號)) and the Notice on Value-Added Tax Policy of Software Products (Cai Shui [2011] No. 100) 《關於軟件產品增值稅政策的通知》(財稅[2011]100號)) released by the Ministry of Finance and the State Administration of Taxation, sales revenue of software products developed by CNPSTC by itself is subject to VAT at the statutory rate and the portion exceeding 3% of actual tax burden is entitled to the "immediate levy and return" policy.

Pursuant to the Notice on Levy of and Exemption from Urban Land Use Tax for Land of Nuclear Power Station (Cai Shui [2007] No. 124) 《關於核電站用地徵免城鎮土地使用稅的通知》(財稅[2007]124號)) issued by the Ministry of Finance and the State Administration of Taxation, other than nuclear islands, regular islands, auxiliary plants, land for communication facilities (excluding land for underground lines) and living and office land, other land for nuclear power stations are exempt from urban land use tax. Taxable land of nuclear power stations is subject to half of the urban land use tax during infrastructure construction period.

# Notes to the Financial Statements

For the year ended December 31, 2019

## (V) Notes to Items in the Consolidated Financial Statements

### 1. Cash at bank and in hand

Unit: RMB

Item	December 31, 2019	December 31, 2018
Cash in hand:		
RMB	3,588.14	5,812.41
HKD	–	2,280.00
USD	7.58	7.41
EUR	3,460.20	3,404.15
Cash at bank:	120.36	120.85
RMB	19,499,941,828.31	15,177,713,030.31
HKD	15,523,656,638.60	12,001,959,297.89
USD	8,905,641.29	8,670,746.13
EUR	3,838,913,504.12	3,066,799,498.05
GBP	110,999,212.90	82,074,177.76
ZAR	17,443,278.77	18,187,416.22
Other cash at bank and in hand:	23,552.63	21,894.26
RMB	21,750,129.76	30,217,919.80
Interest receivable for time deposits	21,750,129.76	30,217,919.80
Less: Bad debt provisions	49,953,227.37	388,449,625.43
Carrying value	–	–
Total	49,953,227.37	388,449,625.43
Include: Total amount deposited overseas	19,571,648,773.58	15,596,386,387.95
	1,180,296,776.84	1,097,805,361.03

As at December 31, 2019, in the other cash at bank and in hand as mentioned above, the Group, as a supplier, deposited guarantee deposits in banks in accordance to the supply and sales contracts amounted to RMB21,750,129.76 (December 31, 2018: RMB30,217,919.80), and their uses were restricted.

As at December 31, 2019, the Group's fixed deposits of more than three months amounted to RMB4,645,827,800.00 (December 31, 2018: RMB3,540,000,000.00). The corresponding interest receivable for time deposits amounted to RMB49,953,227.37 (December 31, 2018: RMB388,449,625.43).

As at December 31, 2019, the Group had no restricted balances such as mortgages or pledges, as well as those deposited overseas with restricted repatriation.

### 2. Derivative financial assets

Unit: RMB

Item	December 31, 2019	December 31, 2018
Derivative financial assets	3,149,401.93	4,753,642.10

### 3. Bills receivable

#### (1) Bills receivable disclosed by category

Unit: RMB

Item	December 31, 2019	December 31, 2018
Bank acceptance bills	669,120,265.04	18,433,532.76
Commercial acceptance bills	50,000.00	–
<b>Total</b>	<b>669,170,265.04</b>	<b>18,433,532.76</b>

- (2) All of the bills receivable are due within one year, and the aging are counted starting from the date when bills receivable are recognized.
- (3) As at December 31, 2019, the Group had no pledged bills receivable.
- (4) As at December 31, 2019, the Group had no bills receivable which were endorsed and discounted but outstanding at the statement of financial position date.
- (5) As at December 31, 2019, the Group had no bills transferred to accounts receivable due to non-performance of the issuers.
- (6) The Group considers that the acceptors of its commercial bills have high credit ratings and there is no significant credit risk. Therefore, no loss allowance has been made.

### 4. Accounts receivable

#### (1) Accounts receivable disclosed by category

Unit: RMB

Item	December 31, 2019	December 31, 2018
Accounts receivable arising from contracts with customers	7,613,182,646.09	6,751,528,146.34
Including: Group 1	7,147,764,943.75	6,249,212,682.38
Group 2	382,333,306.49	417,994,768.11
Accounts receivable for which provision for bad debts has been individually made	83,084,395.85	84,320,695.85
Less: Impairment provisions	129,288,920.84	120,580,702.45
Including: Group 1	25,390,418.37	22,967,372.36
Group 2	20,814,106.62	13,292,634.24
Accounts receivable for which provision for bad debts has been individually made	83,084,395.85	84,320,695.85
<b>Carrying value</b>	<b>7,483,893,725.25</b>	<b>6,630,947,443.89</b>

# Notes to the Financial Statements

For the year ended December 31, 2019

As part of the Group's credit risk management, the Group uses the age of accounts receivable to assess the impairment loss by grouping of accounts receivable with the same risk characteristics, and the aging data reflects the solvency of such customers when the accounts receivable become due. The credit risk and expected credit loss of each group of accounts receivable are as follows:

Group 1:

Unit: RMB

Aging	December 31, 2019				December 31, 2018			
	Expected average	Carrying balance	Bad debt provision	Carrying value	Expected average	Carrying balance	Bad debt provision	Carrying value
	loss rate				loss rate			
Less than 1 year	0.30%	7,125,993,950.07	21,377,819.74	7,104,616,130.33	0.30%	6,206,957,852.57	18,680,010.40	6,188,277,842.17
1 to 2 years	5.00%	6,226,834.99	311,377.95	5,915,457.04	5.00%	27,766,996.20	1,388,349.81	26,378,646.39
2 to 3 years	20.00%	15,544,158.69	3,701,220.68	11,842,938.01	20.00%	14,473,379.27	2,894,675.85	11,578,703.42
3 to 4 years	30.00%	-	-	-	30.00%	14,454.34	4,336.30	10,118.04
Total		7,147,764,943.75	25,390,418.37	7,122,374,525.38		6,249,212,682.38	22,967,372.36	6,226,245,310.02

Group 2:

Unit: RMB

Aging	December 31, 2019				December 31, 2018			
	Expected average	Carrying balance	Bad debt provision	Carrying value	Expected average	Carrying balance	Bad debt provision	Carrying value
	loss rate				loss rate			
Less than 1 year	0.30%	266,120,053.64	792,229.89	265,327,823.75	0.30%	372,626,834.11	1,117,768.49	371,509,065.62
1 to 2 years	10.00%	93,874,162.29	9,383,996.87	84,490,165.42	10.00%	23,679,042.99	2,367,904.30	21,311,138.69
2 to 3 years	30.00%	10,259,256.96	3,081,299.03	7,177,957.93	30.00%	15,557,407.02	4,667,222.11	10,890,184.91
3 to 4 years	50.00%	8,745,306.60	4,372,653.30	4,372,653.30	50.00%	1,706,689.31	853,344.66	853,344.65
4 to 5 years	80.00%	725,000.00	574,400.53	150,599.47	80.00%	692,000.00	553,600.00	138,400.00
More than 5 years	100.00%	2,609,527.00	2,609,527.00	-	100.00%	3,732,794.68	3,732,794.68	-
Total		382,333,306.49	20,814,106.62	361,519,199.87		417,994,768.11	13,292,634.24	404,702,133.87

Accounts receivable for which provision for bad debts has been individually made:

Unit: RMB

Aging	December 31, 2019				December 31, 2018			
	Expected average	Carrying balance	Bad debt provision	Carrying value	Expected average	Carrying balance	Bad debt provision	Carrying value
	loss rate				loss rate			
2 to 3 years	100.00%	-	-	-	100.00%	75,495,391.80	75,495,391.80	-
3 to 4 years	100.00%	74,259,091.80	74,259,091.80	-	100.00%	3,400,000.00	3,400,000.00	-
4 to 5 years	100.00%	3,400,000.00	3,400,000.00	-	100.00%	5,100,000.00	5,100,000.00	-
More than 5 years	100.00%	5,425,304.05	5,425,304.05	-	100.00%	325,304.05	325,304.05	-
Total		83,084,395.85	83,084,395.85	-		84,320,695.85	84,320,695.85	-

The ageing analysis of accounts receivable is counted starting from the date when revenue are recognized.

## (2) Changes in provisions for bad debts of accounts receivable

Unit: RMB

Item	Expected credit losses during the whole life (no credit impairment occurred)	2019	Total
		Expected credit losses during the whole life (credit impairment occurred)	
January 1, 2019	36,260,006.60	84,320,695.85	120,580,702.45
Provisions for expected credit losses for the year	10,036,629.85	–	10,036,629.85
Reversal of expected credit losses for the year	–	(1,236,300.00)	(1,236,300.00)
Write-offs for the year	–	–	–
Bad debt provisions reduced due to disposal of subsidiaries within the scope of consolidation for the year	(112,249.07)	–	(112,249.07)
Impact of changes in exchange rates	20,137.61	–	20,137.61
December 31, 2019	46,204,524.99	83,084,395.85	129,288,920.84

## (3) Top five debtors with the largest balances of accounts receivable

Unit: RMB

Name of entity	Carrying balance	Percentage to total accounts receivable (%)	Balance of provisions for bad debts at end of the year
Guangdong Power Grid Co., Ltd. (廣東電網有限責任公司)	4,038,772,467.85	53.05	12,116,313.49
Fujian Electric Grid Co., Ltd. (國網福建省電力有限公司)	1,062,491,310.22	13.96	3,187,473.93
Guangxi Power Grid Co., Ltd. (廣西電網有限責任公司)	449,436,016.42	5.90	1,348,308.05
Hong Kong Nuclear Investment Co. Ltd. ("HKNIC") (香港核電投資有限公司)	412,532,043.36	5.42	1,224,438.21
CGNPC Zhejiang Daishan Offshore Wind Power Co., Ltd. (中廣核浙江岱山海上風力發電有限公司)	340,036,781.81	4.47	1,020,110.35
Total	6,303,268,619.66	82.79	18,896,644.03

## 5. Prepayments

### (1) Prepayments by aging

Unit: RMB

Aging	December 31, 2019		December 31, 2018	
	Amount	Percentage (%)	Amount	Percentage (%)
Less than 1 year	5,502,465,828.77	59.82	1,268,797,506.25	24.74
1 to 2 years	701,497,252.79	7.63	979,563,571.88	19.10
2 to 3 years	712,620,826.10	7.75	1,021,677,185.33	19.92
More than 3 years	2,280,919,469.15	24.80	1,858,910,490.41	36.24
Total	9,197,503,376.81	100.00	5,128,948,753.87	100.00

Description of the reasons for the non-timely settlement of prepayments aged over 1 year and in significant amount:

Prepayments aged over 1 year are mainly payments for construction projects, which have not yet been settled with the other party due to the long cycle of the projects.

# Notes to the Financial Statements

For the year ended December 31, 2019

## (2) Top five entities with the largest balances of prepayments

Unit: RMB

Name of entity	Amount	Percentage to total prepayments (%)
CGNPC Uranium Resources Co., Ltd.	3,915,503,871.31	42.57
China Construction Second Engineering Bureau Ltd.	733,742,678.68	7.98
Dongfang Electric Corporation Limited	560,257,503.08	6.09
China Nuclear Industry 23 Construction Co., Ltd.	490,960,186.95	5.34
Envision Energy Limited	260,702,606.85	2.83
Total	5,961,166,846.87	64.81

## 6. Other receivables

### (1) Total other receivables

Unit: RMB

Item	December 31, 2019	December 31, 2018
Interest receivable	–	–
Dividends receivable	77,057,776.36	146,023,234.13
Other receivables	70,138,499.14	373,104,354.98
Total	147,196,275.50	519,127,589.11

### (2) Interest receivable

As at December 31, 2019 and December 31, 2018, the Group had no overdue interest.

### (3) Dividends receivable

#### (a) Dividends receivable

Unit: RMB

Investee	December 31, 2019	December 31, 2018
China Nuclear Industry Huaxing Construction Co., Ltd. (中國核工業華興建設有限公司)	68,954,241.70	46,460,441.70
China Nuclear Industry 23 Construction Co., Ltd.	12,855,627.11	–
China Techenergy Co., Ltd. (“Techenergy”)	–	130,200,000.00
Total	81,809,868.81	176,660,441.70
Less: Bad debt provisions	4,752,092.45	30,637,207.57
Carrying value	77,057,776.36	146,023,234.13

(b) Determining provision for bad debt

Unit: RMB

Item	2019			Total
	Expected credit losses within 12 months	Expected credit losses during the whole life (no credit impairment occurred)	Expected credit losses during the whole life (credit impairment occurred)	
January 1, 2019	46,148.40	30,591,059.17	–	30,637,207.57
Provisions for expected credit losses for the year	98,466.90	–	–	98,466.90
Reversals for expected credit losses for the year	–	(25,983,582.02)	–	(25,983,582.02)
31 December, 2019	144,615.30	4,607,477.15	–	4,752,092.45

(4) Other receivables

(a) Disclosed by aging

Unit: RMB

Item	December 31, 2019		Provisions percentage (%)
	Other receivables	Bad debt provisions	
Less than 1 year	44,135,875.96	132,407.63	0.30
1 to 2 years	17,477,703.55	1,747,770.36	10.00
2 to 3 years	8,094,146.19	2,428,243.86	30.00
3 to 4 years	5,472,577.52	2,911,288.76	53.20
4 to 5 years	6,942,001.57	4,764,095.04	68.63
More than 5 years	27,032,473.51	27,032,473.51	100.00
Total	109,154,778.30	39,016,279.16	

(b) Other receivables disclosed by category

Unit: RMB

Item	December 31, 2019				December 31, 2018			
	Expected credit losses within 12 months	Expected credit losses during the whole life (no credit impairment occurred)	Expected credit losses during the whole life (credit impairment occurred)	Total	Expected credit losses within 12 months	Expected credit losses during the whole life (no credit impairment occurred)	Expected credit losses during the whole life (credit impairment occurred)	Total
Group 1	18,056,921.51	22,836,526.39	–	40,893,447.90	1,737,832.69	23,602,171.38	–	25,340,004.07
Group 2	26,078,954.45	41,832,375.95	–	67,911,330.40	155,165,862.66	252,026,729.44	–	407,192,592.10
Other receivables for which bad debt provision is individually assessed	–	–	350,000.00	350,000.00	–	–	410,836.47	410,836.47
Carrying balance	44,135,875.96	64,668,902.34	350,000.00	109,154,778.30	156,903,695.35	275,628,900.82	410,836.47	432,943,432.64
Bad debt provisions	855,141.09	37,811,138.07	350,000.00	39,016,279.16	470,711.09	58,957,530.10	410,836.47	59,839,077.66

# Notes to the Financial Statements

For the year ended December 31, 2019

## (c) Changes in bad debt provisions for other receivables

Unit: RMB

Item	Expected credit losses within 12 months	2019		Total
		Expected credit losses during the whole life (no credit impairment occurred)	Expected credit losses during the whole life (credit impairment occurred)	
January 1, 2019	470,711.09	58,957,530.10	410,836.47	59,839,077.66
Provisions for expected credit losses for the year	361,072.44	–	–	361,072.44
Reversal of expected credit losses for the year	–	(21,158,532.52)	(60,836.47)	(21,219,368.99)
Impact of changes in exchange rates	23,357.56	12,140.49	–	35,498.05
31 December, 2019	855,141.09	37,811,138.07	350,000.00	39,016,279.16

## (d) Top five debtors with the largest balances of other receivables

Unit: RMB

Name of entity	Nature	Amount	Aging	Percentage to total other receivables (%)	Balance of provisions for bad debts at end of the year
CGN Services Group Co., Ltd. (中廣核服務集團有限公司) ("CGN Services Group")	Related party receivables	22,335,310.94	More than 5 years	20.46	22,335,310.94
CGNPC	Related party receivables	9,577,157.28	Less than 1 year	8.77	5,280.27
Liaoning Hongyanhe Nuclear Power Co., Ltd. (遼寧紅沿河核電有限公司) ("Hongyanhe Nuclear")	Related party receivables	8,436,459.25	Less than 1 year	7.73	25,309.38
Shenzhen Branch of the People's Insurance Company (Group) of China Ltd.	Others	5,799,157.44	Less than 1 year, 1 to 2 years	5.31	579,756.82
Customs of Fangchenggang, Guangxi	Others	4,147,446.69	Less than 1 year	3.80	12,442.34
Total		50,295,531.60		46.07	22,958,099.75

## (e) Other receivables by nature

Unit: RMB

Nature of other receivables	December 31, 2019	December 31, 2018
Related party payments	40,892,232.45	343,340,694.50
Employee borrowings and petty cash fund	18,763,233.13	35,011,086.15
Others	49,499,312.72	54,591,651.99
Total	109,154,778.30	432,943,432.64

## 7. Inventories

### (1) Inventories by category

Unit: RMB

Item	December 31, 2019			December 31, 2018		
	Carrying balance	Provision for decline in value	Carrying value	Carrying balance	Provision for decline in value	Carrying value
Nuclear fuel	7,262,238,837.29	-	7,262,238,837.29	5,629,968,019.93	-	5,629,968,019.93
Spare parts	5,137,167,848.62	559,625,831.92	4,577,542,016.70	4,675,746,210.60	541,552,231.16	4,134,193,979.44
Goods on hand	3,513,868.31	-	3,513,868.31	686,808.96	-	686,808.96
Consigned processing materials	6,443,470,388.70	-	6,443,470,388.70	11,505,325,235.70	-	11,505,325,235.70
Materials in transit	159,222,239.91	112,851,427.35	46,370,812.56	170,981,191.28	112,851,427.35	58,129,763.93
Raw materials	37,091,393.03	-	37,091,393.03	42,650,099.00	-	42,650,099.00
Turnover materials	409,924.30	-	409,924.30	1,301,449.42	-	1,301,449.42
<b>Total</b>	<b>19,043,114,500.16</b>	<b>672,477,259.27</b>	<b>18,370,637,240.89</b>	<b>22,026,659,014.89</b>	<b>654,403,658.51</b>	<b>21,372,255,356.38</b>

### (2) Provision for decline in value of inventories

Unit: RMB

Inventory categories	January 1, 2019	Additions during the year		Deductions during the year			December 31, 2019
		Provision	Impact of foreign currency translation	Reversal or write-off	Decrease due to disposal of subsidiaries	Classified as held-for-sale	
Spare parts	541,552,231.16	30,151,843.83	3,719,965.19	15,798,208.26	-	-	559,625,831.92
Materials in transit	112,851,427.35	-	-	-	-	-	112,851,427.35
<b>Total</b>	<b>654,403,658.51</b>	<b>30,151,843.83</b>	<b>3,719,965.19</b>	<b>15,798,208.26</b>	<b>-</b>	<b>-</b>	<b>672,477,259.27</b>

# Notes to the Financial Statements

For the year ended December 31, 2019

## (3) Description of the inventory balance containing the capitalized borrowing costs

One-third of the initial nuclear fueling costs is recognized in the inventory, and is included in the production cost by installments at the period between the initial fueling and the next refueling based on the on-grid power generation. As at December 31, 2019, the capitalized borrowing costs included in the initial nuclear fueling costs in the Group's inventory amounted to RMB25,994,777.15 (December 31, 2018: RMB32,753,983.48).

## 8. Contract assets

### (1) Presentation of contract assets

Unit: RMB

Item	December 31, 2019			December 31, 2018		
	Carrying balance	Impairment provision	Carrying value	Carrying balance	Impairment provision	Carrying value
Completed but unsettled assets resulting from construction contracts	3,415,434,802.99	10,174,389.36	3,405,260,413.63	3,406,637,671.84	10,060,627.59	3,396,577,044.25
Guarantee deposits	17,950,123.53	2,032,883.59	15,917,239.94	14,276,824.50	1,066,842.28	13,209,982.22
<b>Total</b>	<b>3,433,384,926.52</b>	<b>12,207,272.95</b>	<b>3,421,177,653.57</b>	<b>3,420,914,496.34</b>	<b>11,127,469.87</b>	<b>3,409,787,026.47</b>

Unit: RMB

Item	December 31, 2019		Total
	Expected credit losses during the whole life (no credit impairment occurred)	Expected credit losses during the whole life (credit impairment occurred)	
January 1, 2019	11,127,469.87	–	11,127,469.87
Provisions for expected credit losses for the year	1,079,803.08	–	1,079,803.08
Reversal for expected credit losses for the year	–	–	–
<b>December 31, 2019</b>	<b>12,207,272.95</b>	<b>–</b>	<b>12,207,272.95</b>

### (2) Qualitative and quantitative analysis of contract assets

The amount associated with construction contracts is the project balance that should be delivered to the customer under the construction contract that CGN Engineering receives from the customer's payment based on a series of performance-based milestones. The Group firstly recognizes the completed construction as a contract asset and reclassifies the recognized contract assets to accounts receivable upon receipt of payment from the customer.

## 9. Non-current assets due within one year

Unit: RMB

Item	December 31, 2019	December 31, 2018
Derivative financial instruments	245,345.98	3,649,503.86
Others	–	9,530.00
Total	245,345.98	3,659,033.86

## 10. Other current assets

Unit: RMB

Item	December 31, 2019	December 31, 2018
VAT retained at the end of the year	3,055,567,029.57	2,701,364,945.88
Others	3,194,202.18	2,252,581.58
Total	3,058,761,231.75	2,703,617,527.46

# Notes to the Financial Statements

For the year ended December 31, 2019

## 11. Long-term equity investments

Investee	Balance at January 1, 2019	Additional investment	Reduce investment	Investment gains/losses recognized under the equity method	Changes in the current year				Closing balance of impairment provisions
					Adjustment of other comprehensive gains	Changes in other equity	Declared cash dividends or profits	Impairment provision	
Associates									
Hongyanhe Nuclear	6,146,082,661.65	481,271,400.00	-	579,439,458.32	-	-	(540,225,616.61)	-	-
Fujian Ningde Second Nuclear Power Co., Ltd. (福建寧德第二核電有限公司)	161,078,000.00	63,640,000.00	-	-	-	-	-	-	-
("Ningde Second Nuclear")									
CGN Industry Investment Fund Phase I Co., Ltd. (中廣核一期產業投資基金有限公司)	2,316,725,067.42	45,571,500.00	-	297,741,058.83	-	-	(242,000,220.00)	-	-
("CGN Fund Phase I")									
China Nuclear Industry 23, Construction Co., Ltd.	416,394,488.95	-	-	71,615,487.70	-	11,889,200.87	(25,711,300.00)	-	-
CGN Finance Co., Ltd. (中廣核財務有限責任公司) ("CGN Finance")	1,130,149,538.02	120,000,000.00	-	179,503,402.75	-	-	(68,642,252.61)	-	-
CECC Engineering Company Limited (中誠工程有限公司)	32,593,420.88	-	-	2,176,514.36	-	-	-	-	-
Xiong'an Xingrong Nuclear Power Innovation Center Co., Ltd. (雄安興融核電創新中心有限公司)	-	20,000,000.00	-	-	-	-	-	-	-
Total	10,203,023,176.92	730,482,900.00	-	1,130,475,921.96	-	11,889,200.87	(876,579,389.22)	-	-

Unit: RMB

Balance at December 31, 2019	Closing balance of impairment provisions
6,666,567,903.36	-
224,718,000.00	-
2,418,037,406.25	-
474,187,877.52	-
1,361,010,688.16	-
34,769,935.24	-
20,000,000.00	-
11,199,291,810.53	-

## 12. Other investment in equity instruments

### (1) Other investment in equity instruments

Unit: RMB

Investee	December 31, 2019	December 31, 2018	Reasons for the specified classification	Dividends recognized in 2019
Chinergy Co., Ltd. (中核能源科技有限公司)	110,000,000.00	110,000,000.00	Not intended to hold for recent sale or short-term profit	–
China Nuclear Industry Huaxing Construction Co., Ltd. (中國核工業華興建設有限公司)	281,155,000.00	312,689,500.00	Not intended to hold for recent sale or short-term profit	22,493,800.00
<b>Total</b>	<b>391,155,000.00</b>	<b>422,689,500.00</b>		<b>22,493,800.00</b>

### (2) Investment in other equity instruments measured at fair value

Unit: RMB

Item	December 31, 2019	December 31, 2018
Cost of equity instruments	255,580,350.00	195,310,350.00
Additional investment during the year	–	60,270,000.00
Fair value	391,155,000.00	422,689,500.00
Accumulated change in fair value recognized in other comprehensive income	135,574,650.00	167,109,150.00

## 13. Other non-current financial assets

Unit: RMB

Item	December 31, 2019	December 31, 2018
Derivative financial instruments	–	812,257.18

# Notes to the Financial Statements

For the year ended December 31, 2019

## 14. Investment properties

### (1) Investment properties measured at cost

Unit: RMB

Item	Buildings and structures
I. Original carrying value	
1. Opening balance	348,032,270.85
2. Additions during the year	162,585.24
(1) Impact of foreign currency translation	162,585.24
3. Deductions during the year	880,715.83
(1) Investment properties transferred to self-use properties	880,715.83
4. Closing balance	347,314,140.26
II. Accumulated depreciation and accumulated amortization	
1. Opening balance	137,686,229.49
2. Additions during the year	26,374,978.91
(1) Provisions	26,301,140.83
(2) Impact of foreign currency translation	73,838.08
3. Deductions during the year	494,275.33
(1) Investment properties transferred to self-use properties	494,275.33
4. Closing balance	163,566,933.07
III. Impairment provisions	
1. Opening balance	-
2. Additions during the year	-
3. Deductions during the year	-
4. Closing balance	-
IV. Carrying value	
1. Closing carrying value	183,747,207.19
2. Opening carrying value	210,346,041.36

(2) As at December 31, 2019, the Group had no investment properties without proper title certificates.

(3) Undiscounted future lease receipts after the statement of financial position date

Unit: RMB

Maturity analysis of undiscounted operating future lease receipts	December 31, 2019
The first year after the statement of financial position date	45,457,129.31
The second year after the statement of financial position date	32,096,578.71
The third year after the statement of financial position date	2,834,588.13
The fourth year after the statement of financial position date	2,769,068.72
The fifth year after the statement of financial position date	2,699,402.05
After the sixth year after the statement of financial position date	9,193,381.27
Total	95,050,148.19

## 15. Fixed assets

### (1) Fixed assets

Unit: RMB

Item	Buildings and structures	Machinery and equipment	Transportation vehicles	Electronic and office equipment	Cost of nuclear power plant decommissioning	Vessels	Total
I. Original carrying value							
1. Opening balance	61,974,415,696.37	208,285,151,654.98	159,801,260.76	2,572,750,531.67	2,202,232,878.45	-	275,194,352,022.23
2. Additions during the year	7,958,363,265.15	47,622,017,484.33	16,575,055.35	222,285,950.30	469,693,289.45	420,164,851.04	56,709,099,895.62
(1) Acquisition	8,953,844.84	275,332,197.09	12,939,039.59	122,729,651.93	376,138,580.94	-	796,093,314.39
(2) Transfer from construction in progress	7,867,495,000.80	46,964,997,280.84	3,542,569.14	97,317,796.38	90,592,118.40	420,164,851.04	55,444,109,616.60
(3) Transfer from development costs	-	-	-	810,584.02	-	-	810,584.02
(4) Investment properties transferred to self-use properties	880,715.83	-	-	-	-	-	880,715.83
(5) Impact of foreign currency translation	81,033,703.68	381,688,006.40	93,446.62	1,427,917.97	2,962,590.11	-	467,205,664.78
3. Deductions during the year	529,373,737.05	127,218,074.16	13,742,065.23	94,488,641.74	-	-	764,822,518.18
(1) Disposal	3,330,121.52	127,218,074.16	13,742,065.23	64,106,344.31	-	-	208,396,605.22
(2) Decrease from the disposal of subsidiaries	526,043,615.53	-	-	30,382,297.43	-	-	556,425,912.96
4. Closing balance	69,403,405,224.47	255,779,951,065.15	162,634,250.88	2,700,547,840.23	2,671,926,167.90	420,164,851.04	331,138,629,399.67
II. Accumulated depreciation							
1. Opening balance	11,958,390,613.06	50,188,286,869.98	108,907,765.08	1,765,771,715.08	311,163,394.43	-	64,332,520,357.63
2. Additions during the year	1,945,792,426.16	7,841,652,643.93	19,439,674.08	219,202,849.90	58,550,973.86	10,644,176.24	10,095,282,744.17
(1) Provisions	1,871,415,884.35	7,505,696,465.78	19,370,461.97	217,972,956.66	56,582,779.93	10,644,176.24	9,681,682,724.93
(2) Investment properties transferred to self-use properties	494,275.33	-	-	-	-	-	494,275.33
(3) Impact of foreign currency translation	73,882,266.48	335,956,178.15	69,212.11	1,229,893.24	1,968,193.93	-	413,105,743.91
3. Deductions during the year	56,678,458.33	101,784,243.32	13,398,198.57	83,709,485.73	-	-	255,570,385.95
(1) Disposal	810,166.64	101,784,243.32	13,398,198.57	54,314,433.10	-	-	170,307,041.63
(2) Decrease from the disposal of subsidiaries	55,868,291.69	-	-	29,395,052.63	-	-	85,263,344.32
4. Closing balance	13,847,504,580.89	57,928,155,270.59	114,949,240.59	1,901,265,079.25	369,714,368.29	10,644,176.24	74,172,232,715.85
III. Impairment provisions							
1. Opening balance	-	11,625,082.45	-	-	-	-	11,625,082.45
2. Additions during the year	-	78,317.95	-	-	-	-	78,317.95
(1) Impact of foreign currency translation	-	78,317.95	-	-	-	-	78,317.95
3. Closing balance	-	11,703,400.40	-	-	-	-	11,703,400.40
IV. Carrying value							
1. Closing carrying value	55,555,900,643.58	197,840,092,394.16	47,685,010.29	799,282,760.98	2,302,211,799.61	409,520,674.80	256,954,693,283.42
2. Opening carrying value	50,016,025,083.31	158,085,239,702.55	50,893,495.68	806,978,816.59	1,891,069,484.02	-	210,850,206,582.15

(2) As at December 31, 2019, the Group had no temporarily idle fixed assets.

(3) As at December 31, 2019, the Group had no fixed assets under financial leases.

(4) As at December 31, 2019, the Group had no fixed assets under operating leases.

(5) Fixed assets without proper title certificates

As at December 31, 2019, the net value of the properties held by the Group for which the application of title certificates was still in progress amounted to RMB 6,010,592,201.47.

# Notes to the Financial Statements

For the year ended December 31, 2019

## 16. Construction in progress

### (1) Construction in progress

Unit: RMB

Name of project	December 31, 2019			December 31, 2018		
	Carrying balance	Impairment provision	Carrying value	Carrying balance	Impairment provision	Carrying value
Fangchenggang Nuclear Phase II Project	18,493,655,613.45	-	18,493,655,613.45	12,509,637,399.87	-	12,509,637,399.87
Lufeng Nuclear Project	17,172,511,687.31	-	17,172,511,687.31	15,834,583,812.79	-	15,834,583,812.79
Fangchenggang Nuclear Phase I Project	509,419,602.73	-	509,419,602.73	311,742,443.04	-	311,742,443.04
Ningde Nuclear project	348,772,240.36	-	348,772,240.36	56,720,887.82	-	56,720,887.82
Taishan Nuclear project	98,373,003.16	-	98,373,003.16	36,794,864,039.66	-	36,794,864,039.66
Yangjiang Nuclear Project	-	-	-	7,455,936,462.12	-	7,455,936,462.12
Others	2,617,837,866.28	-	2,617,837,866.28	1,661,237,067.75	-	1,661,237,067.75
<b>Total</b>	<b>39,240,570,013.29</b>	<b>-</b>	<b>39,240,570,013.29</b>	<b>74,624,722,113.05</b>	<b>-</b>	<b>74,624,722,113.05</b>

## (2) Changes in major construction in progress

Unit: RMB

Name of project	Budget amount	January 1, 2019	Additions during the year	Transfer to fixed assets	Transfer to intangible assets	Other deductions (Note 2)	December 31, 2019	Proportion of investment to budget (%)	Project progress (%)	Accumulated capitalized interest	Including: capitalized interest for the year	Ratio of capitalized interest amount for the year (%)	Sources of fund
Yangjiang Nuclear Project	77,532,140,000.00	7,455,936,462.12	4,683,516,434.24	11,154,851,297.77	-	384,603,998.59	-	96.55	100.00	9,538,919,209.64	196,128,889.10	4.35	Capital, loans, debt issuance
Lufeng Nuclear Project (Note 1)	/	15,834,583,812.79	1,337,927,874.52	-	-	-	17,172,511,687.31	/	/	2,827,630,801.81	603,990,806.56	4.45	Capital, loans
Fangchenggang Nuclear Phase I Project	28,756,050,000.00	311,742,443.04	208,427,895.22	10,750,735.53	-	-	519,419,602.73	100.01	100.00	4,372,947,377.63	-	-	Capital, loans, debt issuance
Fangchenggang Nuclear Phase II Project	37,489,790,000.00	12,509,637,399.87	6,068,816,350.84	-	84,798,137.26	-	18,493,653,634.45	39.56	39.56	1,454,611,526.61	607,397,937.45	4.64	Capital, loans
Taishan Nuclear project	85,812,910,000.00	36,794,864,039.66	6,958,602,468.84	43,114,800,796.67	-	540,292,708.67	98,373,003.16	100	100	16,774,032,935.75	883,086,294.48	4.24	Self-funded, loans, debt issuance
<b>Total</b>	<b>229,590,880,000.00</b>	<b>72,906,764,157.48</b>	<b>18,657,293,023.66</b>	<b>54,280,402,829.97</b>	<b>84,798,137.26</b>	<b>924,896,307.26</b>	<b>36,713,959,906.65</b>			<b>34,968,141,851.44</b>	<b>2,247,603,927.59</b>		

Note 1: According to the approval letter in relation to the launch of preliminary work of Lufeng Phase I from the General Office of the NDRC (《國家發改委辦公廳關於同意廣東陸豐核電一期工程前期工作的函》), as the preliminary work of Lufeng Nuclear project (Lufeng Phase I), to be launched by Lufeng Nuclear has not been approved yet, there is no investment budget at present.

Note 2: Other deductions mainly were the transfer of one-third of the initial nuclear fueling costs of new units commenced commercial operation to inventory.

# Notes to the Financial Statements

For the year ended December 31, 2019

## (3) Provisions for construction in progress

Unit: RMB

Name of project	Provision	Reason for provision
Nil	–	N/A

## 17. Right-of-use assets

### (1) Right-of-use assets

Unit: RMB

Item	Buildings and structures
I. Original carrying value	
1. January 1, 2019	1,202,135,473.97
2. Additions during the year	69,831,603.06
(1) Increase in additions	69,152,752.86
(2) Impact of foreign currency translation	678,850.20
3. Deductions during the year	4,580,553.19
(1) Decrease from the disposal of subsidiaries	4,580,553.19
4. December 31, 2019	1,267,386,523.84
II. Accumulated depreciation	
1. January 1, 2019	–
2. Additions for the year	222,230,197.74
(1) Provisions	222,132,933.85
(2) Impact of foreign currency translation	97,263.89
3. Deductions during the year	–
(1) Decrease from the disposal of subsidiaries	–
4. December 31, 2019	222,230,197.74
III. Impairment provisions	
1. January 1, 2019	–
2. Additions during the year	–
3. Deductions during the year	–
4. December 31, 2019	–
IV. Carrying value	
1. December 31, 2019	1,045,156,326.10
2. January 1, 2019	1,202,135,473.97

### (2) Amounts recognized in profit or loss

Unit: RMB

Buildings and structures	2019
Depreciation expense of right-of-use assets (Note 1)	220,712,670.92
Interest expense on the lease liabilities (Note 2)	53,259,974.56
Short-term lease expenses	4,494,600.00
Leases expenses of low-value assets	–
Variable lease payments not included in lease liabilities (Note 3)	–
Revenue from subleasing right-of-use assets	–

Note 1: In 2019, the capitalized depreciation expense of right-of-use assets amounted to RMB1,420,262.93.

Note 2: In 2019, the capitalized interest expense on the lease liabilities amounted to RMB374,194.92.

Note 3: In 2019, there were no variable lease payments not included in lease liabilities.

### (3) In 2019, the total cash outflow of the Group's leases amounted to RMB282,567,127.77.

## 18. Intangible assets

### (1) Intangible assets

Unit: RMB

Item	Land use rights	Computer software	Patent rights	Non-patented			Total
				technology	Sea area use right	Others	
I. Original carrying value							
1. Opening balance	4,066,663,269.94	1,800,013,128.31	579,011,600.93	531,929,426.20	263,676,952.00	92,804,022.62	7,334,098,400.00
2. Additions during the year	298,404,271.76	219,151,942.95	88,807,669.32	70,932,840.06	-	-	677,296,724.09
(1) Acquisition	207,412,996.17	105,381,957.31	-	748,463.15	-	-	313,543,416.63
(2) Transfer from construction in progress	84,798,137.26	43,420,887.66	-	-	-	-	128,219,024.92
(3) Transfer from development cost	-	66,945,471.49	88,807,669.32	70,184,376.91	-	-	225,937,517.72
(4) Impact of foreign currency translation	6,193,138.33	3,403,626.49	-	-	-	-	9,596,764.82
3. Deductions during the year	40,210,600.00	98,391,475.45	-	-	-	-	138,602,075.45
(1) Decrease from the disposal of subsidiaries	40,210,600.00	18,936.84	-	-	-	-	40,229,536.84
(2) Disposal during the year	-	98,372,538.61	-	-	-	-	98,372,538.61
4. Closing balance	4,324,856,941.70	1,920,773,595.81	667,819,270.25	602,862,266.26	263,676,952.00	92,804,022.62	7,872,793,048.64
II. Accumulated amortization							
1. Opening balance	830,775,693.22	1,392,917,292.19	149,005,267.13	195,363,899.19	16,459,421.34	29,780,379.68	2,614,301,952.75
2. Additions during the year	110,450,193.56	176,538,784.92	76,208,021.31	49,305,313.66	5,964,634.84	9,894,460.30	428,361,408.59
(1) Provisions	106,032,341.65	173,319,399.40	76,208,021.31	49,305,313.66	5,964,634.84	9,894,460.30	420,724,171.16
(2) Impact of foreign currency translation	4,417,851.91	3,219,385.52	-	-	-	-	7,637,237.43
3. Deductions during the year	8,578,261.74	98,320,509.93	-	-	-	-	106,898,771.67
(1) Decrease from the disposal of subsidiaries	8,578,261.74	18,936.84	-	-	-	-	8,597,198.58
(2) Disposal during the year	-	98,301,573.09	-	-	-	-	98,301,573.09
4. Closing balance	932,647,625.04	1,471,135,567.18	225,213,288.44	244,669,212.85	22,424,056.18	39,674,839.98	2,935,764,589.67
III. Impairment provision							
1. Opening balance	-	-	-	-	-	-	-
2. Additions during the year	-	-	-	-	-	-	-
3. Deductions during the year	-	-	-	-	-	-	-
4. Closing balance	-	-	-	-	-	-	-
IV. Carrying amount							
1. Closing carrying value	3,392,209,316.66	449,638,028.63	442,605,981.81	358,193,053.41	241,252,895.82	53,129,182.64	4,937,028,458.97
2. Opening carrying value	3,235,887,576.72	407,095,836.12	430,006,333.80	336,565,527.01	247,217,530.66	63,023,642.94	4,719,796,447.25

As at December 31, 2019, the Group's intangible assets from internal research and development accounted for 15.83% of the balance of intangible assets.

### (2) Right-of-use assets without proper title certificates

As at December 31, 2019, the Group had no right-of-use assets without proper title certificates.

## 19. Development cost

Unit: RMB

Item	January 1, 2019	Additions during the year	Deductions during the year			December 31, 2019
			Transfer to intangible asset during the year	Transfer to fixed assets during the year	Transfer to profit or loss during the year	
AP1000	302,016,904.15	57,046,536.03	2,433,666.52	-	3,526,507.12	353,103,266.54
HPR/ACPR 1000	631,847,645.57	7,824,250.62	223,503,851.20	-	36,113,546.90	380,054,498.09
Others	1,028,591,207.18	658,541,973.48	-	810,584.02	145,254,686.22	1,541,067,910.42
Total	1,962,455,756.90	723,412,760.13	225,937,517.72	810,584.02	184,894,740.24	2,274,225,675.05

# Notes to the Financial Statements

For the year ended December 31, 2019

## 20. Goodwill

### (1) Original carrying value of goodwill

Unit: RMB

Item	January 1, 2019	Additions during the year From business combinations	Deductions during the year Disposal	December 31, 2019
China Daya Bay Nuclear Power Technology Research Institute Co., Ltd. (中國大亞灣核電技術研究院有限公司)	7,048,000.00	–	–	7,048,000.00
Ningde Nuclear	419,242,673.32	–	–	419,242,673.32
<b>Total</b>	<b>426,290,673.32</b>	<b>–</b>	<b>–</b>	<b>426,290,673.32</b>

### (2) Impairment provision for goodwill

Unit: RMB

Name of investee or matters generating goodwill	January 1, 2019	Additions during the year Provisions	Deductions during the year Disposal	December 31, 2019
China Daya Bay Nuclear Power Technology Research Institute Co., Ltd. (中國大亞灣核電技術研究院有限公司)	7,048,000.00	–	–	7,048,000.00

As at December 31, 2019, the Group assessed the recoverable amount of Ningde Nuclear's goodwill and determined that the Group's acquisition of Ningde Nuclear related goodwill had no impairment occurred.

The Group conducted impairment tests with Ningde Nuclear as a whole asset group. The recoverable amount of Ningde Nuclear was determined in accordance with the present value of its projected future cash flows. Its future cash flows were based on the financial budget approved by the management for the period from 2020 to 2056 and are discounted using a discount rate of 9.67%. Other key assumptions used in anticipation of future cash flows were: the estimated sales and gross profit based on the past performance of Ningde Nuclear and the expected market developments by the management. The management considered any reasonable change in the above assumptions will not result in the carrying value of the net assets of Ningde Nuclear being lower than its recoverable amount.

## 21. Long-term deferred expenses

Unit: RMB

Item	December 31, 2018	Accounting policy changes	January 1, 2019	Increase during the year	Amortization for the year	Impact of foreign currency translation	December 31, 2019
Nuclear power production preparation staff training fee (Note 1)	1,154,731,271.29	–	1,154,731,271.29	121,691,711.02	283,843,266.27	–	992,579,716.04
Emergency passages (Note 2)	407,432,450.30	–	407,432,450.30	–	24,725,076.85	–	382,707,373.45
Others	172,494,770.46	(57,615,631.40)	114,879,139.06	5,319,433.55	22,060,280.07	2,391.29	98,140,683.83
<b>Total</b>	<b>1,734,658,492.05</b>	<b>(57,615,631.40)</b>	<b>1,677,042,860.65</b>	<b>127,011,144.57</b>	<b>330,628,623.19</b>	<b>2,391.29</b>	<b>1,473,427,773.32</b>

Note 1: The expenses incurred during the training of nuclear power production preparation staff shall be accounted as long-term deferred expenses of the Group, and shall be amortized according to the remaining working years as stipulated in the labor contract or training agreement from the conclusion of the training, and recognized in the cost of the related assets or profit or loss for the period.

Note 2: The emergency passages were constructed under funding by Ling'ao Nuclear, Lingdong Nuclear, Yangjiang Nuclear, Fangchenggang Nuclear and Ningde Nuclear. It was accounted as long-term deferred expenses by the Group, amortized based on the estimated useful life from the date of completion and recognized in cost of the related assets or the profit or loss for the period.

## 22. Deferred tax assets/deferred tax liabilities

### (1) Deferred tax assets after offset and corresponding deductible temporary differences after offset

Unit: RMB

Item	December 31, 2019		December 31, 2018	
	Deductible temporary differences	Deferred tax assets	Deductible temporary differences	Deferred tax assets
Unrealized profit arising from internal transactions	7,321,752,176.99	1,830,438,044.25	6,878,832,451.99	1,719,708,113.00
Deferred income	219,190,314.12	32,846,859.63	131,504,510.29	19,693,989.04
Expected credit losses	67,481,906.58	9,875,350.23	62,781,908.18	9,225,121.78
Others	195,198,612.25	30,903,095.05	162,854,827.68	26,241,174.35
<b>Total</b>	<b>7,803,623,009.94</b>	<b>1,904,063,349.16</b>	<b>7,235,973,698.14</b>	<b>1,774,868,398.17</b>

### (2) Deferred tax liabilities after offset and corresponding taxable temporary differences after offset

Unit: RMB

Item	December 31, 2019		December 31, 2018	
	Taxable temporary differences	Deferred tax liabilities	Taxable temporary differences	Deferred tax liabilities
Depreciation of fixed assets	4,208,530,264.35	1,095,318,603.42	3,884,587,923.17	1,015,437,210.55
Revaluation gain of assets for business combinations involving entities not under common control	487,639,130.10	121,909,782.50	550,904,565.92	137,726,141.48
Others	-	-	96,484,258.76	24,121,064.69
<b>Total</b>	<b>4,696,169,394.45</b>	<b>1,217,228,385.92</b>	<b>4,531,976,747.85</b>	<b>1,177,284,416.72</b>

### (3) Unrecognized deferred tax assets

Unit: RMB

Item	December 31, 2019	December 31, 2018
Deductible temporary differences	372,865,368.73	155,120,298.46
Deductible losses	1,896,938,464.33	770,888,501.76
<b>Total</b>	<b>2,269,803,833.06</b>	<b>926,008,800.22</b>

Note: As it is uncertain for the Company and certain subsidiaries to obtain sufficient taxable income in the future, the above deductible temporary differences and deductible losses are not recognized as deferred tax assets.

# Notes to the Financial Statements

For the year ended December 31, 2019

## (4) Deductible losses of unrecognized deferred tax assets due in the following years

Unit: RMB

Year	December 31, 2019	December 31, 2018
2019	–	18,775,391.00
2020	58,463,744.06	155,735,394.34
2021	301,254,208.80	360,465,359.47
2022	–	82,210,303.10
2023	148,301,161.79	153,702,053.85
2024	1,388,919,349.68	–
Total	1,896,938,464.33	770,888,501.76

## 23. Other non-current assets

Unit: RMB

Item	December 31, 2019	December 31, 2018
VAT retained at the end of the year	5,037,652,514.54	5,413,386,886.24
Prepayment for engineering equipment	953,857,317.37	754,406,748.13
Prepayment for land purchase	–	11,957,964.00
Others	37,739,834.23	65,181,029.71
Total	6,029,249,666.14	6,244,932,628.08

Note: The prepayment for land purchase is the land prepayment to the Fangchenggang Land Resources Bureau by Fangchenggang Nuclear.

## 24. Short-term loans

### (1) Short-term loans by category

Unit: RMB

Item	December 31, 2019	December 31, 2018
Credit loans	14,246,581,618.90	16,296,240,042.13
Short-term loans interest payable	16,691,839.58	70,502,215.22
Total	14,263,273,458.48	16,366,742,257.35

(2) As at December 31, 2019, the Group had no overdue and unsettled short-term loans.

## 25. Derivative financial liabilities

Unit: RMB

Item	December 31, 2019	December 31, 2018
Derivative financial instruments	–	2,724,971.67

## 26. Bills payable

### (1) Bills payable by category

Unit: RMB

Item	December 31, 2019	December 31, 2018
Commercial acceptance bills	24,936,897.30	104,438,140.29
Bank acceptance bills	2,593,446,897.71	2,155,726,746.95
<b>Total</b>	<b>2,618,383,795.01</b>	<b>2,260,164,887.24</b>

(2) As at December 31, 2019, the Group had no overdue and unsettled bills payable.

## 27. Accounts payable

### (1) Accounts payable by aging

Unit: RMB

Aging	December 31, 2019	December 31, 2018
Less than 1 year	16,816,576,820.68	13,578,695,513.73
1 to 2 years	1,429,846,114.77	1,047,166,567.09
2 to 3 years	654,954,693.70	893,219,613.47
More than 3 years	1,082,102,135.94	467,817,988.56
<b>Total</b>	<b>19,983,479,765.09</b>	<b>15,986,899,682.85</b>

The ageing analysis of accounts payable is counted starting from the date when purchase are recognized.

### (2) Accounts payable aged over one year with significant amount

Unit: RMB

Name of creditors	Amount	Reason for outstanding or not transfer
Dongfang Electric Corporation Limited	318,237,082.82	Not yet settled
Shanghai Electric Group Co., Ltd. (上海電氣集團股份有限公司)	252,985,574.87	Not yet settled
Nanfeng Ventilator Co., Ltd. (南方風機股份有限公司)	94,184,447.47	Not yet settled
Shanghai First Machine Tool Works Co., Ltd. (上海第一機床廠有限公司)	56,059,392.87	Not yet settled
Jiangsu Shentong Valve Co., Ltd.	58,333,986.84	Not yet settled
<b>Total</b>	<b>779,800,484.87</b>	

## 28. Receipts in advance

### (1) Receipts in advance

Unit: RMB

Item	December 31, 2019	December 31, 2018
Insurance payment	40,000.00	2,058,361.07
<b>Total</b>	<b>40,000.00</b>	<b>2,058,361.07</b>

### (2) Receipts in advance aged over one year with significant amount

As at December 31, 2019, the Group had no receipts in advance aged over one year with significant amount.

# Notes to the Financial Statements

For the year ended December 31, 2019

## 29. Contract liabilities

### (1) Contract liabilities

Unit: RMB

Item	December 31, 2019	December 31, 2018
Settled payments of uncompleted construction, installation and design service contracts	1,520,769,634.57	751,679,055.21
Payments of sales, technical services and construction, installation and design services received in advance	22,472,717.98	84,120,693.22
Total	1,543,242,352.55	835,799,748.43

(2) The contract liabilities before the offset of the contract assets and contract liabilities at the beginning of 2019 was RMB1,381,172,830.45, and the amount of income recognized in the book value of the contract liabilities in the beginning of the year for the year was RMB1,011,887,712.90, including contract liabilities arising from settled payments of uncompleted construction, installation and design service contracts of RMB794,531,720.64 and sales, technical services and construction and installation contract payment received in advance of RMB217,355,992.26.

### (3) Qualitative and quantitative analysis of contract liabilities

The contract liabilities associated with the construction, installation and design service contracts are the balances payable to the customer under the contract under construction. The balance is generated when a specific milestone payment exceeds the revenue recognized as a result of the performance.

For sales revenue, it is recognized when the control right of the product is transferred to the customer. When the customer purchases a product and prepays to the Group, the Group recognizes the transaction price received as the contract liabilities until the control right of the product is transferred to the customer.

Service-related revenue is recognized over a period of time, although the customer has paid in advance for partial or full service payments. The Group recognizes the contract liabilities when it initially receives the service payment and transfers it to revenue during the service period.

## 30. Employee benefits payable

### (1) Employee benefits payable

Unit: RMB

Item	January 1, 2019	Increase during the year	Decrease during the year	December 31, 2019
I. Short-term employee benefits payable	40,208,203.79	8,583,907,436.41	8,582,708,969.36	41,406,670.84
II. Post-employment benefits – defined contribution plan	2,408,230.01	1,236,430,045.96	1,229,198,208.06	9,640,067.91
III. Dismissal benefits	–	288,633.52	288,633.52	–
IV. Others	–	34,596,358.77	34,596,358.77	–
Total	42,616,433.80	9,855,222,474.66	9,846,792,169.71	51,046,738.75

## (2) Short-term employee benefits

Unit: RMB

Item	January 1, 2019	Increase during the year	Decrease during the year	December 31, 2019
1. Salaries, bonuses, allowances and subsidies	92,508.46	6,141,462,801.64	6,141,555,310.10	-
2. Staff welfare	-	1,043,141,384.81	1,043,141,384.81	-
3. Social insurance premiums	509,744.22	491,521,439.29	491,705,329.24	325,854.27
Including: Basic medical insurance	393,797.44	214,007,366.79	214,199,398.67	201,765.56
Supplementary medical insurance	-	245,241,708.47	245,241,708.40	0.07
Work-related injury insurance	41,901.13	10,433,178.05	10,421,477.93	53,601.25
Maternity insurance	74,045.65	21,758,480.16	21,762,038.42	70,487.39
Others	-	80,705.82	80,705.82	-
4. Housing provident funds	4,150,457.38	544,178,831.84	544,351,541.64	3,977,747.58
5. Labor union expenditures and employees' education expenses	33,936,777.73	192,505,315.25	189,800,168.92	36,641,924.06
6. Other short-term employee benefits	1,518,716.00	171,097,663.58	172,155,234.65	461,144.93
<b>Total</b>	<b>40,208,203.79</b>	<b>8,583,907,436.41</b>	<b>8,582,708,969.36</b>	<b>41,406,670.84</b>

## (3) Defined contribution plan

Unit: RMB

Item	January 1, 2019	Increase during the year	Decrease during the year	December 31, 2019
1. Basic pension insurance	1,128,075.23	562,382,146.94	562,509,156.49	1,001,065.68
2. Unemployment insurance	42,816.92	7,484,458.96	7,472,794.47	54,481.41
3. Corporate annuity contribution	1,237,337.86	666,563,440.06	659,216,257.10	8,584,520.82
<b>Total</b>	<b>2,408,230.01</b>	<b>1,236,430,045.96</b>	<b>1,229,198,208.06</b>	<b>9,640,067.91</b>

Other explanations:

The Group participates in pension insurance and unemployment insurance schemes established by the government as required, pursuant to which, the Group contributes a stipulated proportion to pension insurance and unemployment insurance schemes respectively. Other than the above, the Group has no further payment responsibility. The corresponding expenses are recognized in profit or loss for the period or the cost of related assets when incurred.

For the year, the Group shall pay a total of RMB562,382,146.94 and RMB7,484,458.96 to the pension insurance and unemployment insurance schemes respectively. As at December 31, 2019, the balance of the pension insurance premiums and unemployment insurance premiums payable by the Group was RMB1,001,065.68 and RMB54,481.41, respectively, which were paid after the balance sheet date.

# Notes to the Financial Statements

For the year ended December 31, 2019

## 31. Taxes payable

Item	Unit: RMB	
	December 31, 2019	December 31, 2018
VAT	401,087,335.77	459,915,223.09
Urban maintenance and construction tax	27,191,483.98	35,722,236.84
Enterprise income tax	920,861,678.96	818,786,799.34
Withholding individual income tax	78,476,104.38	79,117,001.48
Real estate tax	3,007,546.06	6,462,219.38
Duty stamp	2,630,494.73	1,899,677.90
Education surcharges	19,462,919.64	25,630,240.87
Others	4,035,758.81	3,760,802.06
<b>Total</b>	<b>1,456,753,322.33</b>	<b>1,431,294,200.96</b>

## 32. Other payables

### (1) Total other payables

Item	Unit: RMB	
	December 31, 2019	December 31, 2018
Interest payable	–	–
Dividends payable	4,775,112.45	968,903,753.94
Other payables	3,812,981,522.86	2,909,575,413.49
<b>Total</b>	<b>3,817,756,635.31</b>	<b>3,878,479,167.43</b>

### (2) Interest payable

As at December 31, 2019, the Group had no unpaid overdue interest.

### (3) Dividends payable

Name of entities	Unit: RMB	
	December 31, 2019	December 31, 2018
CGN Fund Phase I	–	136,740,753.94
Guangdong Electric Power Design Institute of China Energy Engineering Group	4,775,112.45	–
HKNIC	–	832,163,000.00
<b>Total</b>	<b>4,775,112.45</b>	<b>968,903,753.94</b>

As at December 31, 2019, the Group had no dividends payable for more than 1 year.

#### (4) Other payables

##### (a) Other payables by nature

Unit: RMB

Item	December 31, 2019	December 31, 2018
Spent fuel management fund	1,666,053,671.40	1,332,687,588.66
Related party payments	1,694,228,858.41	1,155,810,728.47
Others	452,698,993.05	421,077,096.36
Total	3,812,981,522.86	2,909,575,413.49

##### (b) Other payables aged over one year with significant amount

Unit: RMB

Item	December 31, 2019	December 31, 2018	Reason for outstanding or not transfer
CGNPC Guangxi GI Energy Co., Ltd. (廣西廣投能源有限公司)	70,057,866.02	63,251,842.25	Not yet settled
Guangxi Investment Group Co., Ltd. (廣西投資集團有限公司)	577,200,000.00	–	Not yet settled
合計	–	488,161,440.00	Not yet settled
合計	647,257,866.02	551,413,282.25	

### 33. Non-current liabilities due within one year

Unit: RMB

Item	December 31, 2019	December 31, 2018
Long-term loans due within one year	19,409,032,724.59	15,792,525,241.13
Long-term loans interest payable	318,957,134.52	331,672,129.46
Bonds payable due within one year	2,499,772,044.29	2,500,000,000.00
Bonds payable interests payable	238,679,631.17	226,984,986.30
Post-employment benefit scheme liabilities due within one year	2,783,999.04	2,583,999.04
Lease liabilities due within one year	278,363,939.11	/
Total	22,747,589,472.72	18,853,766,355.93

### 34. Other current liabilities

Unit: RMB

Item	December 31, 2019	December 31, 2018
Pending output tax	536,334,171.47	964,545,364.41

# Notes to the Financial Statements

For the year ended December 31, 2019

## 35. Long-term loans

### (1) Long-term loans by category

Unit: RMB

Item	December 31, 2019	December 31, 2018
Credit loans	24,379,836,231.47	28,575,767,074.65
Guaranteed loans (Note 1)	3,000,000,000.00	6,000,000,000.00
Pledged loans (Note 2)	159,011,962,139.45	160,675,985,135.51
Secured loans (Note 3)	877,046,513.14	180,719,170.77
<b>Total</b>	<b>187,268,844,884.06</b>	<b>195,432,471,380.93</b>
Less: Long-term loans due within one year	19,409,032,724.59	15,792,525,241.13
Long-term loans due after one year	167,859,812,159.47	179,639,946,139.80

Notes for classification of long-term loans:

Note 1: In August 2012, GNIC, a subsidiary of the Company, entered into the "Taiping Asset – CGN Power Project Debt Investment Plan Investment Contract" (《太平資產-中廣核電項目債權投資計劃投資合同》) with Taiping Asset Management Co., Ltd. (太平資產管理有限公司) pursuant to which Taiping Asset Management Co., Ltd. initiated the establishment of "Taiping Asset – CGN Power Project Debt Investment Plan" with the actual investment proceeds of RMB3 billion. The proceeds were invested in GNIC in the form of debts, and were used in the construction of nuclear power projects of Taishan Nuclear and Yangjiang Nuclear under GNIC. CGNPC provides a full unconditional irrevocable joint and several liability guarantee for all the obligations of GNIC under such contract to Taiping Asset Management Co., Ltd.. As at December 31, 2019, the loan had not expired.

Note 2: Pledged loans are pledged by the Group with its interests under sales agreements of electricity, insurance contracts and equity interest held. For details of the pledge of the Group, please refer to Note (V)66.

Note 3: Secured loans are secured by the Company's subsidiaries SNPRI, CGN Engineering and CNPRI with land use rights and buildings. For details, please refer to Note (V)66.

The range of annual interest rate of the above loans:

	2019	2018
Range of annual interest rate of the above loans	0.49%-5.30%	0.49%-5.30%

### (2) Repayment terms of long-term loans

Unit: RMB

Term	December 31, 2019	December 31, 2018
1 to 2 years (including 2 years)	16,111,579,994.62	10,248,340,000.00
2 to 5 years (including 5 years)	32,017,527,307.69	14,283,740,444.70
More than 5 years	119,730,704,857.16	155,107,865,695.10
<b>Total</b>	<b>167,859,812,159.47</b>	<b>179,639,946,139.80</b>

### (3) Long-term loans by nature of payments

Unit: RMB

Item	December 31, 2019	December 31, 2018
Loans from related parties	5,064,536,796.00	6,906,680,980.90
Bank loans	162,795,275,363.47	172,733,265,158.90
<b>Total</b>	<b>167,859,812,159.47</b>	<b>179,639,946,139.80</b>

## 36. Bonds payable

### (1) Bonds payable

Unit: RMB

Category	December 31, 2019	December 31, 2018
Long-term bonds	4,499,772,044.29	4,498,219,043.17
Medium-term notes (Note)	6,987,133,846.98	3,989,825,356.08
Private placement financing instruments	–	2,500,000,000.00
Total	11,486,905,891.27	10,988,044,399.25
Less: Bonds payable due within one year	2,499,772,044.29	2,500,000,000.00
Bonds payable due after one year	8,987,133,846.98	8,488,044,399.25

Note: The Group issued 18 CGN Power MTN001, MTN002, MTN003, MTN004, 19 CGN Power MTN001 and MTN002 (medium-term notes) on April 24, 2018, April 24, 2018, August 21, 2018, October 17, 2018, January 18, 2019 and July 22, 2019, respectively. These medium-term notes, with nominal values amounting to RMB1,000,000,000.00, RMB1,000,000,000.00, RMB1,000,000,000.00, RMB1,000,000,000.00, RMB1,500,000,000.00 and RMB1,500,000,000.00, and a total cost of issuance of RMB21,000,000.00, will become due and payable in April 2021, April 2021, August 2021, October 2021, January 2022 and July 2022, respectively.

# Notes to the Financial Statements

For the year ended December 31, 2019

## (2) Changes in bonds payable

Name of Bonds	Face value	Issue date	Term	Issue amount	January 1, 2019	December 31, 2019				
						Issue during the year	Accrued interest based on the face value	Amortization of premiums or discounts	Repayment during the year	December 31, 2019
07 CGN Debt	2,000,000,000.00	20/12/2007	15 years	2,000,000,000.00	2,000,000,000.00	-	118,000,000.00	-	-	2,000,000,000.00
10 CGN Debt	2,500,000,000.00	12/05/2010	10 years	2,500,000,000.00	2,498,219,043.17	-	115,000,000.00	1,553,001.12	-	2,499,772,044.29
18 CGN Power MTN001	1,000,000,000.00	24/04/2018	3 years	1,000,000,000.00	997,653,176.38	-	52,500,000.00	985,053.95	-	998,638,230.33
18 CGN Power MTN002	1,000,000,000.00	24/04/2018	3 years	1,000,000,000.00	997,653,371.34	-	46,900,000.00	985,282.62	-	998,638,653.96
18 CGN Power MTN003	1,000,000,000.00	21/08/2018	3 years	1,000,000,000.00	997,341,123.56	-	42,400,000.00	972,604.84	-	998,313,728.40
18 CGN Power MTN004	1,000,000,000.00	17/10/2018	3 years	1,000,000,000.00	997,177,684.80	-	40,300,000.00	900,237.13	-	998,077,921.93
19 CGN Power MTN001	1,500,000,000.00	18/01/2019	3 years	1,500,000,000.00	-	1,495,500,000.00	49,625,521.58	1,862,776.46	-	1,497,362,776.46
19 CGN Power MTN002	1,500,000,000.00	22/07/2019	3 years	1,500,000,000.00	-	1,495,500,000.00	23,488,356.16	602,535.90	-	1,496,102,535.90
16 Yangjiang Nuclear Power PPN001	500,000,000.00	20/01/2016	3 years	500,000,000.00	500,000,000.00	-	989,041.10	-	500,000,000.00	-
16 Yangjiang Nuclear Power PPN002	500,000,000.00	01/03/2016	3 years	500,000,000.00	500,000,000.00	-	3,030,821.92	-	500,000,000.00	-
16 Yangjiang Nuclear Power PPN003	700,000,000.00	17/06/2016	3 years	700,000,000.00	700,000,000.00	-	12,490,684.93	-	700,000,000.00	-
16 Yangjiang Nuclear Power PPN004	800,000,000.00	19/07/2016	3 years	800,000,000.00	800,000,000.00	-	15,440,219.18	-	800,000,000.00	-
Total	14,000,000,000.00			14,000,000,000.00	10,988,044,399.25	2,991,000,000.00	520,164,644.87	7,861,492.02	2,500,000,000.00	11,486,905,991.27
Less: Bonds payable due within one year					2,500,000,000.00					2,499,772,044.29
Bonds payable due after one year					8,488,044,399.25					8,987,133,846.98

Unit: RMB

## 37. Lease liabilities

### (1) Lease liabilities

Unit: RMB

Item	December 31, 2019	December 31, 2018
Lease liabilities	973,919,623.65	/
Less: Lease liabilities due within one year	278,363,939.11	/
Lease liabilities due after one year	695,555,684.54	/

### (2) Term of lease liabilities

Unit: RMB

Term	December 31, 2019
Less than 1 year	278,363,939.11
1 to 2 years (including 2 years)	199,282,249.13
2 to 5 years (including 5 years)	275,550,310.75
More than 5 years	220,723,124.66
Total	973,919,623.65

## 38. Long-term employee benefits payable

### (1) Long-term employee benefits payable

Unit: RMB

Item	December 31, 2019	December 31, 2018
Post-employment benefits- net liabilities of defined benefit plan	44,240,999.04	43,122,999.04
Cash-settled share-based payment	78,312,817.00	61,728,273.40
Total	122,553,816.04	104,851,272.44
Less: Liabilities of post-employment benefits due within one year	2,783,999.04	2,583,999.04
Net amount	119,769,817.00	102,267,273.40

### (2) Changes in defined benefit plan

The present value of obligations under the defined benefit plan:

Unit: RMB

Item	December 31, 2019	December 31, 2018
I. Opening balance	43,122,999.04	43,615,999.04
II. Defined benefit cost included in profit or loss	5,118,000.00	1,672,000.00
1. Net interest	3,608,000.00	1,672,000.00
2. Past service cost	1,510,000.00	-
III. Defined benefit cost included in other comprehensive income	(38,000.00)	913,000.00
1. Actuarial gains	(38,000.00)	913,000.00
IV. Other changes	(3,962,000.00)	(3,078,000.00)
1. Paid benefits	(3,962,000.00)	(3,078,000.00)
V. Closing balance	44,240,999.04	43,122,999.04

The Group applies the following discount rate and growth rate actuarial assumptions for the above results of the defined benefit plan:

Item	December 31, 2019	December 31, 2018
Discount rate		
Discharge benefit plan	2.80%	2.90%
Retirement benefit plan	3.20%	3.30%
Growth rate		
Discharge benefit plan	2.00%	1.90%
Retirement benefit plan	2.70%	2.80%

# Notes to the Financial Statements

For the year ended December 31, 2019

The defined benefit plan usually exposes the Group to interest rate risk and longevity risk:

- Interest rate risk: Rising discount rate will lead to a reduction in planned liabilities;
- Longevity risk: As at December 31, 2019 and December 31, 2018, the life table used in the defined income plan is the experience life table of the pension business in China's life insurance industry (CL(2010-2013)).

Other explanation:

The Group provides supplementary retirement benefit plans for some resigned and retired employees. According to the plan, the supplementary retirement benefits paid by the Group include nursing recuperation fees, holiday fees, travel expenses, medical examination and vaccination fees and annually paid supplementary medical insurance in accordance with policies, and the benefits will be paid until their death.

The present value as at December 31, 2019 of the retirement benefit plan obligations above in an actuarial manner based on the expected cumulative welfare unit method is estimated by Alex Tschai (蔡宗周) and Cong Yan Qianru (丛妍倩如), Fellows of the Institute of Actuaries from Mercer Consulting (China) Co., Ltd. The plan estimates future cash outflows based on inflation and mortality assumptions and determines its present value at a discount rate. The discount rate is determined according to the government bond market yield rate corresponding to the planned duration on the balance sheet date and the evaluation date of the defined benefit plan obligation and currency. The Group recognizes its liabilities based on the actuarial results. The relevant actuarial gains or losses are recognized in other comprehensive income and will not be reversed to profit or loss in subsequent accounting periods. Past service costs are recognized through profit or loss for the current period in which the plan is revised. The net interest is determined by multiplying the defined benefit plan net liabilities or net assets by the appropriate discount rate. The above defined benefit plan has no planned assets.

## 39. Provisions

Unit: RMB

Item	December 31, 2019	December 31, 2018	Reason
Provision for nuclear power plant decommissioning	4,415,795,933.61	3,689,783,017.22	Note 1
Provision for low and medium level radioactive waste disposal	493,740,971.87	310,281,961.52	Note 2
Others	1,092,684.47	1,466,775.27	
<b>Total</b>	<b>4,910,629,589.95</b>	<b>4,001,531,754.01</b>	

Note 1: It is the discounted value of the best estimate of the expected cost of processing the nuclear power plant decommissioning of the Group.

Note 2: It is the best estimate of the expected disposal cost of long-term and short-term low and medium level radioactive waste generated by nuclear power plants.

## 40. Deferred income

Unit: RMB

Item	January 1, 2019	Increase during the year	Amortization amount of the year	Other changes	December 31, 2019
Government grants	1,395,854,838.75	614,456,474.83	142,865,793.65	5,892,319.83	1,873,337,839.76

Projects related to government grants:

Unit: RMB

Item	January 1, 2019	Increase in grant during the year	Amount recognized in other gains for the year	Other changes	December 31, 2019	Related to asset/ related to income
Special fund for infrastructure expenses of nuclear power equipment proprietary project from the Ministry of Finance	70,395,000.00	-	5,493,000.00	-	64,902,000.00	Related to asset
Grant for the R&D and test verification platform construction project of small reactor and nuclear main pump operation and maintenance technology	74,620,000.00	-	-	-	74,620,000.00	Related to asset
Grant for Energy Independent Innovation Project by Ministry of Finance in 2011	41,601,000.00	-	11,886,000.00	-	29,715,000.00	Related to asset
R&D and test center of inaccessible equipment in nuclear power plant containment	6,000,000.00	-	6,000,000.00	-	-	Related to asset
Grant for Daya Bay spent fuel storage facility renovation project	321,165,845.23	65,186,222.34	-	5,988,373.10	392,340,440.67	Related to asset
Experimental Study on Critical Heat Flux of Shanghai Nuclear Engineering Research and Design Institute	62,427,800.00	-	-	-	62,427,800.00	Related to asset
Other government grants related to income	265,777,618.83	182,893,477.52	50,577,041.29	(576,000.00)	397,518,055.06	Related to income
Other government grants related to asset	553,867,574.69	366,376,774.97	68,909,752.36	479,946.73	851,814,544.03	Related to asset
Total	1,395,854,838.75	614,456,474.83	142,865,793.65	5,892,319.83	1,873,337,839.76	

## 41. Share Capital

Unit: RMB

Name of company	January 1, 2019	Changes in the current year				Subtotal	December 31, 2019
		Issuance of new shares	Bonus shares	Transfer from capital reserves	Others		
Domestic shares	34,285,125,000.00	5,049,861,100.00	-	-	-	5,049,861,100.00	39,334,986,100.00
Including: CGNPC	29,176,641,375.00	-	-	-	-	-	29,176,641,375.00
Guangdong Hengjian Investment Holdings Co., Ltd. (廣東恒健投資控股有限公司)	3,428,512,500.00	-	-	-	-	-	3,428,512,500.00
CNNC	1,679,971,125.00	-	-	-	-	-	1,679,971,125.00
Other domestic shares	-	5,049,861,100.00	-	-	-	5,049,861,100.00	5,049,861,100.00
Overseas listed foreign shares (H shares)	11,163,625,000.00	-	-	-	-	-	11,163,625,000.00
Total	45,448,750,000.00	5,049,861,100.00	-	-	-	5,049,861,100.00	50,498,611,100.00

On August 16, 2019, the Company completed the initial public offering of 5,049,861,100 RMB ordinary shares (A shares) with a nominal value of RMB1.00 per share on the Shenzhen Stock Exchange, with an additional registered capital (share capital) of RMB5,049,861,100.00, and a share premium of RMB7,339,914,459.44 was included in capital reserve. The above share capital was verified by the Capital Verification Reports issued by Deloitte Touche Tohmatsu Certified Public Accountants LLP, namely De Shi Bao (Yan) Zi (15) No.0003, De Shi Bao (Yan) Zi (15) No.0004 and De Shi Bao (Yan) Zi (19) No.0386.

## 42. Capital reserve

Unit: RMB

Item	January 1, 2019	Increase during the year	Decrease during the year	December 31, 2019
Share premium	25,510,597,306.64	7,339,914,459.44	-	32,850,511,766.08
- Share capital contributed by owners	29,254,190,663.74	7,339,914,459.44	-	36,594,105,123.18
- Business combination involving entities under common control	(4,009,274,475.26)	-	-	(4,009,274,475.26)
- Others	265,681,118.16	-	-	265,681,118.16
Restructuring valuation adjustment	(27,701,479,836.62)	-	-	(27,701,479,836.62)
Other capital reserve	5,541,401,711.80	11,889,200.87	-	5,553,290,912.67
Total	3,350,519,181.82	7,351,803,660.31	-	10,702,322,842.13

# Notes to the Financial Statements

For the year ended December 31, 2019

## 43. Other comprehensive income

Item	January 1, 2019	Amount incurred for the year				December 31, 2019
		Incurred amount before income tax for the year	Less: Transferring other comprehensive income recorded in the previous period into current profit or loss	Less: Income tax expenses	Attributable to the shareholders of parent company, after-tax	
I. Other comprehensive income that will not be reclassified to profit or loss	128,294,902.50	(31,496,500.00)	-	(4,730,175.00)	28,625.00	101,498,952.50
1. Change arising from remeasurement of defined benefit plan	(13,747,875.00)	38,000.00	-	-	28,625.00	(13,739,500.00)
2. Other comprehensive income that cannot be transferred to profit or loss under the equity method	-	-	-	-	-	-
3. Change in fair value of investment in other equity instruments	142,042,777.50	(31,534,500.00)	-	(4,730,175.00)	-	115,238,452.50
II. Other comprehensive income that may be reclassified to profit or loss	571,559,238.01	124,700,627.89	-	-	31,175,156.97	665,084,708.93
1. Other comprehensive income that can be transferred to profit or loss under the equity method	4,126,573.52	-	-	-	-	4,126,573.52
2. Translation differences arising from translation of foreign currency financial statements	567,432,664.49	124,700,627.89	-	-	31,175,156.97	660,958,135.41
Total other comprehensive income	699,854,140.51	93,204,127.89	-	(4,730,175.00)	31,203,781.97	766,384,661.43

Unit: RMB

#### 44. Specific reserve

Unit: RMB

Item	January 1, 2019	Increase during the year	Decrease during the year	December 31, 2019
Safe production expenses	197,139,693.40	119,147,425.34	93,885,548.38	222,401,570.36

#### 45. Surplus reserve

Unit: RMB

Item	January 1, 2019	Transfer to surplus reserve during the year	Decrease during the year	December 31, 2019
Statutory surplus reserves	3,341,495,665.44	602,843,649.19	-	3,944,339,314.63

#### 46. Retained earnings

Unit: RMB

Item	2019	2018
Retained earnings before the adjustment at the beginning of the year	18,077,156,831.53	13,139,256,274.10
Business combination involving entities under common control	-	(859,816.88)
Changes in accounting policies	-	57,900,771.93
Others	-	(299,866,423.47)
Retained earnings after the adjustment at the beginning of the year	18,077,156,831.53	12,896,430,805.68
Add: Net profit attributable to shareholders of the parent company for the year	9,465,700,355.79	8,702,632,650.82
Less: Appropriation of statutory surplus reserves	602,843,649.19	609,390,862.94
Distributable profits for shareholders	26,940,013,538.13	20,989,672,593.56
Less: Profits payable (Note 1)	3,272,296,962.43	3,090,516,570.98
Add: Other comprehensive income transferred to retained earnings	-	178,000,808.95
Retained earnings at the end of the year (Note 3)	23,667,716,575.70	18,077,156,831.53

Note 1: On April 23, 2019, a profit distribution plan was considered and approved at the general meeting of the Company, which proposed to distribute cash dividends of RMB0.072 per share based on total shares of 45,448,750,000 shares to all shareholders in order to distribute cash dividends from the accumulated retained earnings for 2018 of RMB3,272,296,962.43 to shareholders. As at December 31, 2019, the dividends above have been paid.

Note 2: Profit distribution resolved subsequent to the balance sheet date

As proposed by the Board of Directors, the Group intends to declare a final dividend of RMB0.076 (tax inclusive) per share for the year ended December 31, 2019 to our Shareholders as of the record date of dividend payment. Such dividend distribution plan is subject to approval at the general meeting.

Note 5: As at December 31, 2019, the balance of retained earnings of the Group included the surplus reserves used by subsidiaries which was RMB7,082,919,055.14 (December 31, 2018: RMB5,697,914,260.57).

# Notes to the Financial Statements

For the year ended December 31, 2019

## 47. Operating revenue and operating costs

Unit: RMB

Item	2019		2018	
	Revenue	Cost	Revenue	Cost
From principal operation	60,589,245,467.36	35,185,491,661.50	50,543,922,149.96	28,227,621,577.00
Of which: Sales of electricity	52,783,020,377.01	27,743,385,671.64	46,071,750,901.61	23,425,317,972.01
Construction, installation and design services	6,163,681,030.01	6,144,634,380.26	3,178,563,261.77	3,812,574,569.31
Rendering of services	900,621,726.14	589,537,703.67	721,858,441.79	494,359,016.18
Sales of goods and others	741,922,334.20	707,933,905.93	571,749,544.79	495,370,019.50
From other operations	285,930,787.54	285,968,457.96	283,997,034.47	276,233,032.56
Total	60,875,176,254.90	35,471,460,119.46	50,827,919,184.43	28,503,854,609.56

(1) For the details of operating revenue, please refer to Note (XIV)1.

(2) As at December 31, 2019, the transaction price attributable to outstanding (or partially outstanding) performance obligation and the estimated time of revenue recognition:

Unit: RMB

Item	2020	2021	2022	After January 1, 2023	Total
Construction, installation and design service	5,852,888,926.58	668,278,897.64	198,822,705.84	385,712,930.86	7,105,703,460.92
Rendering of services	435,177,346.97	314,328,718.65	266,444,233.04	433,081,890.23	1,449,032,188.89
Sales of goods and others	170,999,003.33	154,336,065.25	65,954,204.47	16,326,451.94	407,615,724.99

(3) As at December 31, 2019, there was no significant variable consideration in the transaction price of the Group.

## 48. Taxes and surcharges

Unit: RMB

Item	2019	2018
City maintenance and construction tax	312,657,807.13	302,780,271.45
Education surcharges	223,384,487.28	216,643,216.46
Stamp duty	38,369,637.51	27,490,954.99
Others	125,456,346.72	85,855,686.03
Total	699,868,278.64	632,770,128.93

## 49. Selling expenses

Unit: RMB

Item	2019	2018
Travelling expenses	7,387,935.53	8,162,462.43
Employees' remuneration	45,446,200.35	57,926,312.33
Rental expenses	–	539,517.22
Logistics service expenses	2,963,042.69	3,710,178.46
Consulting fees and legal affairs fees	2,349,923.44	5,796,186.69
Others	20,850,810.91	25,985,934.04
Total	78,997,912.92	102,120,591.17

## 50. Administrative expenses

Unit: RMB

Item	2019	2018
Employee remuneration	1,143,030,371.24	1,013,756,436.70
Depreciation and amortization	420,111,939.94	293,158,542.76
Rental expenses	4,494,600.00	115,472,337.60
Labor technical service fees	183,886,076.76	105,518,114.38
Logistics service expenses	232,328,325.27	247,220,551.52
Information technology expenses	127,269,950.31	127,768,087.71
Professional service consulting fees	9,657,469.60	21,744,213.82
Auditors' remuneration	9,423,207.55	7,368,632.08
Travelling expenses	41,958,704.84	35,558,156.59
Office expenses	38,159,515.43	41,084,448.31
Other expenses	369,113,020.26	354,248,602.43
<b>Total</b>	<b>2,579,433,181.20</b>	<b>2,362,898,123.90</b>

## 51. R&D expenses

Unit: RMB

Item	2019	2018
Commissioning fees paid for R&D outsourcing, cooperation and others	745,471,547.53	404,811,433.23
Employee remuneration	237,284,163.81	207,251,498.40
Inspection expenses	204,194,021.96	195,402,617.21
Retired projects	145,254,686.22	–
Depreciation expenses	35,918,891.29	45,580,372.15
Amortization expenses	29,589,514.86	22,573,924.40
Others	85,731,139.48	144,206,064.22
<b>Total</b>	<b>1,483,443,965.15</b>	<b>1,019,825,909.61</b>

## 52. Finance cost

Unit: RMB

Item	2019	2018
Interest expenses	9,965,497,005.44	9,947,795,170.31
Less: Capitalized interest expenses	2,265,282,162.32	4,004,039,487.10
Less: Interest income	339,092,835.28	254,816,814.36
Exchange losses	17,841,553.47	192,710,406.19
Less: Capitalized exchange losses	18,471,806.91	96,248,163.36
Interest expenses on the provision for nuclear power plant decommissioning	243,382,214.01	197,603,371.22
Bank charges and others	40,602,432.86	17,864,290.79
Interest expenses on lease liabilities	53,259,974.56	–
<b>Total</b>	<b>7,697,736,375.83</b>	<b>6,000,868,773.69</b>

# Notes to the Financial Statements

For the year ended December 31, 2019

## 53. Other gains

Unit: RMB

Item	2019	2018	Amount included in non-recurring gains and losses in 2019	Amount included in non-recurring gains and losses in 2018
VAT refunds <sup>(Note)</sup>	2,079,868,288.09	1,408,237,981.06	–	–
Other government grants	315,301,019.19	143,333,834.97	315,301,019.19	143,333,834.97
Others	10,122,228.04	11,569,083.75	–	–
<b>Total</b>	<b>2,405,291,535.32</b>	<b>1,563,140,899.78</b>	<b>315,301,019.19</b>	<b>143,333,834.97</b>

Note: For the VAT refunds received by the Group, the Group adopted the VAT "levy first, refund later" policy in respect of its sale of electricity to grid companies generated by Ling'ao Nuclear, Lingdong Nuclear, Yangjiang Nuclear, Fangchenggang Nuclear, and Ningde Nuclear and Taishan Nuclear. For details, please see Note (IV)2.

## 54. Investment income

### Details of investment income

Unit: RMB

Item	2019	2018
Income from long-term equity investments accounted for using the equity method	1,096,412,691.22	1,029,509,833.39
Investment income (loss) from disposal of long-term equity investments	143,073,493.12	(771,849.04)
Income from derivative financial instruments	934,342.44	2,911,325.02
Investment income from holding other equity instruments	22,493,800.00	15,382,800.00
Income from disposal of financial assets held for trading	47,509,589.03	–
Others	(3,365,704.81)	(2,473,446.40)
<b>Total</b>	<b>1,307,058,211.00</b>	<b>1,044,558,662.97</b>

## 55. Gains arising from changes in fair value

Unit: RMB

Item	2019	2018
Gains from changes in fair value of derivative financial instruments	1,624,474.53	4,939,607.32
Gains from changes in fair value of cash-settled share-based payments	2,846,497.16	11,136,508.04
<b>Total</b>	<b>4,470,971.69</b>	<b>16,076,115.36</b>

## 56. Gains (losses) from credit impairment

Unit: RMB

Item	2019	2018
Bad debts losses of accounts receivable	(8,800,329.85)	105,075,832.81
Bad debts losses of other receivables	20,858,296.55	158,046,217.19
Bad debt losses for dividends receivable	25,885,115.12	(30,637,207.57)
Impairment losses of contract assets	(1,079,803.08)	(8,993,565.20)
<b>Total</b>	<b>36,863,278.74</b>	<b>223,491,277.23</b>

## 57. Asset impairment gains (losses)

Unit: RMB

Item	2019	2018
I. Impairment losses of inventories	(30,151,843.83)	(139,409,032.49)
II. Impairment losses of prepayments	-	32,220,000.00
Total	(30,151,843.83)	(107,189,032.49)

## 58. Gains (losses) arising from assets disposal

Unit: RMB

Item	2019	2018
Gains (losses) from disposal of fixed assets	(157,727.76)	106,649.90

## 59. Non-operating income

Unit: RMB

Item	2019	2018	Amount included in non-recurring gains and losses in 2019	Amount included in non-recurring gains and losses in 2018
Others	18,329,088.25	7,639,433.82	18,329,088.25	7,639,433.82

## 60. Non-operating expenses

Unit: RMB

Item	2019	2018	Amount included in non-recurring gains and losses in 2019	Amount included in non-recurring gains and losses in 2018
Donations	19,490,695.15	15,438,158.01	19,490,695.15	15,438,158.01
Others	31,354,123.94	38,491,137.74	31,354,123.94	38,491,137.74
Total	50,844,819.09	53,929,295.75	50,844,819.09	53,929,295.75

## 61. Income tax expenses

### (1) Income tax expenses

Unit: RMB

Item	2019	2018
Current income tax expenses	1,904,040,504.38	1,555,897,354.32
Deferred income tax expenses	(101,078,797.50)	(336,958,473.33)
Adjustments to income tax of previous years	(33,106,713.50)	(1,140,452.73)
Total	1,769,854,993.38	1,217,798,428.26

# Notes to the Financial Statements

For the year ended December 31, 2019

## (2) Reconciliation of income tax expenses to accounting profits

Unit: RMB

Item	2019	2018
Accounting profits	16,555,095,116.02	14,899,475,758.39
Income tax calculated at tax rate of 25%	4,138,773,779.01	3,724,868,939.60
Tax effect of non-deductible expenses	95,186,036.28	30,775,909.20
Tax effect of tax-free income	(290,757,719.07)	(241,500,764.37)
Tax effect of non-taxable income	(519,967,072.02)	(352,059,495.27)
Tax effect of unrecognized deductible losses and deductible temporary differences	369,210,489.91	81,250,422.27
Tax effect of utilization of unrecognized deductible losses and deductible temporary differences in previous years	(65,795,912.81)	(733,854.04)
The effect of the inconsistency between income tax rate applicable to the current period and the income tax rate when measuring the deferred income tax	(13,377,883.55)	24,078,514.13
Adjustment of income tax in previous years	(33,106,713.50)	(1,140,452.73)
Tax effect of tax incentives	(1,822,018,827.41)	(2,156,098,782.73)
Additional deduction for research and development costs	(125,716,943.77)	(25,623,713.78)
Others	37,425,760.31	133,981,705.98
Income tax expenses	1,769,854,993.38	1,217,798,428.26

## 62. Government grants

Unit: RMB

Item	Related to asset/ related to income	Item	2019	2018
Research fund for key technologies for accident-tolerant fuels	Related to asset	Deferred income	-	23,047,100.00
Grant for Hydrogen Safety 3D Analysis Project	Related to asset	Deferred income	-	2,229,100.00
Grant for Daya Bay spent fuel storage facility renovation project	Related to asset	Deferred income	65,186,222.34	312,435,587.90
Experimental Study on Critical Heat Flux of Shanghai Nuclear Engineering Research and Design Institute	Related to asset	Deferred income	-	62,427,800.00
Other government grants related to asset	Related to asset	Deferred income	366,376,774.97	95,159,273.56
Other government grants related to income	Related to income	Deferred income	182,893,477.52	21,675,245.81
VAT refunds	Related to income	Other income	2,079,868,288.09	1,408,237,981.06
Others	Related to income	Other income	172,435,225.54	54,983,747.12
Total			2,866,759,988.46	1,980,195,835.45
Including: Government grants recognized in profit or loss for the period			2,252,303,513.63	1,463,221,728.18

## 63. Other comprehensive income

Please refer to Note (V)43 for details.

## 64. Cash flow statements items

### (1) Cash received from other operating activities

Unit: RMB

Item	2019	2018
Service payments received from related parties and engineering payments received from related parties in advance	1,174,545,691.78	743,905,654.13
Guarantee deposit and deposit	813,517,814.96	583,932,845.72
Government grants related to income	355,328,703.06	76,658,992.93
Government grants related to asset	431,562,997.31	495,298,861.46
Liquidated damages, refunds and advances	61,496,364.79	12,819,643.95
Rental, consulting and other services income	586,900.87	248,460.18
Research fund	27,003,345.00	45,462,683.00
Bank settlement and interest	99,061,513.54	64,411,572.07
Others	184,872,624.26	102,975,849.63
<b>Total</b>	<b>3,147,975,955.57</b>	<b>2,125,714,563.07</b>

### (2) Cash paid to other operating activities

Unit: RMB

Item	2019	2018
Service payments to related parties and engineering payments to related parties in advance	1,012,904,070.18	915,021,959.45
Transportation, travelling expenses and other expenses reimbursement	218,497,598.75	253,968,944.28
Guarantee deposit and deposit	929,838,981.93	399,436,102.40
Consulting and other services expenses	258,974,896.64	92,240,791.66
Remittance of other expenses and other reimbursements	431,383,306.79	182,063,077.20
Vehicle rental fees	14,658,988.51	88,528,910.29
Labour union fees	91,956,814.81	76,104,222.07
Insurance	87,403,930.16	82,141,824.04
Others	232,264,836.41	264,184,252.74
<b>Total</b>	<b>3,277,883,424.18</b>	<b>2,353,690,084.13</b>

### (3) Cash received from other investing activities

Unit: RMB

Item	2019	2018
Amount received in respect of nuclear power construction and other amounts	1,109,405.71	1,502,472,991.57
Recovery of fixed deposits with maturities of more than three months	4,083,963,558.64	248,000,000.00
Commissioning electricity fee income	646,347,944.00	845,367,894.00
Others	20,268,705.64	52,252,925.29
<b>Total</b>	<b>4,751,689,613.99</b>	<b>2,648,093,810.86</b>

# Notes to the Financial Statements

For the year ended December 31, 2019

## (4) Cash paid to other investing activities

Unit: RMB

Item	2019	2018
Payments in relation to nuclear power construction and others	5,486,405.00	314,859,986.09
Settlement of derivative financial instruments	7,116,120.80	2,762,475.99
Deposit of fixed deposits with maturities of more than three months	5,189,791,358.64	1,765,000,000.00
Others	15,352,386.18	3,337,472.17
<b>Total</b>	<b>5,217,746,270.62</b>	<b>2,085,959,934.25</b>

## (5) Cash received from other financing activities

Unit: RMB

Item	2019	2018
Registered capital for Fangchenggang Nuclear Phase II Project received	1,014,661,440.00	577,200,000.00
Consideration received for the equity transfer of 17% in Yangjiang Nuclear	300,843,139.36	-
<b>Total</b>	<b>1,315,504,579.36</b>	<b>577,200,000.00</b>

## (6) Cash paid to other financing activities

Unit: RMB

Item	2019	2018
Payment of registered capital for Fangchenggang Nuclear Phase II Project	488,161,440.00	350,750,000.00
Payment of cash related to leases	282,567,127.77	/
Listing expenses	25,104,023.90	-
Export credit transfer fees	-	13,994,799.56
Others	17,596,835.76	5,544,816.81
<b>Total</b>	<b>813,429,427.43</b>	<b>370,289,616.37</b>

## 65. Supplementary information to cash flow statements

### (1) Supplementary information to cash flow statements

Unit: RMB

Supplementary information	2019	2018
<b>1. Reconciliation of net profit to cash flows from operating activities:</b>		
Net profit	14,785,240,122.64	13,681,677,330.13
Add: Asset impairment losses	30,151,843.83	107,189,032.49
Credit impairment losses	(36,863,278.74)	(223,491,277.23)
Depreciation of fixed assets	9,513,950,809.77	7,387,055,941.58
Amortization of intangible assets	406,956,221.60	366,450,363.63
Amortization of long-term deferred expenses	127,903,729.77	202,653,811.16
Depreciation of investment properties	26,301,140.83	25,947,409.86
Depreciation of right-of-use assets	220,712,670.92	/
Losses on disposal of fixed assets, intangible assets and other long-term assets	27,312,664.35	33,537,561.02
Losses from changes in fair value ("-" : gains)	(4,470,971.69)	(16,076,115.36)
Finance costs	7,812,692,068.31	5,986,236,302.69
Investment income	(1,307,058,211.00)	(1,044,558,662.97)
Decrease in deferred tax assets ("-" : increase)	(125,182,657.41)	(241,903,842.32)
Increase in deferred tax liabilities	24,103,859.91	16,602,677.78
Decrease in contract assets ("-" : increase)	(12,470,430.18)	(79,174,667.38)
Increase in contract liabilities ("-" : decrease)	707,442,604.12	(783,724,926.10)
Decrease in inventories ("-" : increase)	3,578,419,618.23	(1,817,667,680.96)
Decrease in operating receivables ("-" : increase)	(6,772,442,859.42)	1,532,348,775.85
Increase in operating payables	1,596,200,001.61	3,276,468,541.42
Net cash flows from operating activities	30,598,898,947.45	28,409,570,575.29
<b>2. Major investing and financing activities that do not involve cash receipts and payments:</b>		
Transfer from debt to equity	-	-
Convertible corporate bonds due within one year	-	-
Fixed assets under financing leases	-	-
<b>3. Net changes in cash and cash equivalents:</b>		
Closing balance of cash	14,854,117,616.45	11,637,718,842.72
Less: Opening balance of cash	11,637,718,842.72	10,352,460,227.68
Add: Closing balance of cash equivalents	-	-
Less: Opening balance of cash equivalents	-	-
Net increase (decrease) in cash and cash equivalents	3,216,398,773.73	1,285,258,615.04

### (2) Cash received for disposal of subsidiaries and other business entities

Unit: RMB

Item	2019	2018
Cash or cash equivalents received in current period for disposal of subsidiaries	709,991,700.00	-
Including: Shanghai Engineering Science & Technology Co., LTD (上海中廣核工程科技有限公司)	709,991,700.00	-
Less: Cash and cash equivalents held by the subsidiary as at the date when control is lost	1,684,874.80	-
Including: Shanghai Engineering Science & Technology Co., LTD (上海中廣核工程科技有限公司)	1,684,874.80	-
Net cash received for disposal of subsidiaries	708,306,825.20	-

# Notes to the Financial Statements

For the year ended December 31, 2019

## (3) Composition of cash and cash equivalents

Unit: RMB

Item	December 31, 2019	December 31, 2018
I. Cash	14,854,117,616.45	11,637,718,842.72
Including: Cash in hand	3,588.14	5,812.41
Bank deposits available on demand	14,854,114,028.31	11,637,713,030.31
II. Cash equivalents	—	—
III. Closing balance of cash and cash equivalents	14,854,117,616.45	11,637,718,842.72

## 66. Assets with restricted ownership or right of use

Unit: RMB

Item	December 31, 2019	December 31, 2018	Reason for being restricted
Cash at bank and in hand (Note 1)	21,750,129.76	30,217,919.80	Letters of guarantee
Accounts receivable (Note 2)	4,738,302,509.45	4,025,601,001.96	Guarantees
Fixed assets (Note 3)	14,863,287,049.18	15,136,710,175.77	Guarantees
Intangible assets (Note 4)	449,231,725.43	481,432,713.41	Guarantees
Total	20,072,571,413.82	19,673,961,810.94	

Note 1: The letter of guarantee was for the bank deposits of the Group (as the supplier) according to the supply and purchase contract.

Note 2: On August 22, 2005, Lingdong Nuclear entered into the Common Terms Agreement on Loans for Phase II of Guangdong Ling'ao Nuclear Power Plant Construction Project with China Development Bank (the "CDB"), Agricultural Bank of China Shenzhen Branch and Industrial and Commercial Bank of China Shenzhen Branch, and acquired a total loan facility equivalent to USD2.585 billion from the banks with a maturity period ranged from 15 to 22 years. Lingdong Nuclear transferred its interest in the insurance contract of the phase II of the nuclear power plant project to CDB, and pledged all the electricity sales revenue in the electricity sales income collection account to CDB.

On December 16, 2008, Yangjiang Nuclear entered into the Common Terms Agreement on Guangdong Yangjiang Nuclear Power Construction Project with six financial institutions including the CDB and the Bank of China, and obtained a total loan facility of RMB55.652 billion from the banks. The term of the loan shall not be more than 25 years from the date of signing the agreement. Yangjiang Nuclear transferred its interests in the insurance contract and the general contracting contract of the Guangdong Yangjiang Nuclear Power Construction Project to CDB, and pledged the accounts receivable from the electricity sales contract to CDB.

On July 29, 2010, pledging the receivables from electricity sales of Fangchenggang Phase I Construction Project, Fangchenggang Nuclear entered into a series of syndicate agreements with various financial institutions including the CGN Finance (as the leader), China Construction Bank and CDB to obtain a comprehensive borrowing facility equivalent to RMB19.939 billion in aggregate for the construction of its phase I project. In addition, Fangchenggang Nuclear pledged the electricity sales receivables from the phase II project and signed a series of syndicate agreements with the above-mentioned financial institutions on February 16, 2016, obtaining comprehensive borrowing facilities equivalent to RMB28.529 billion and equivalent to USD246 million in aggregate for the construction of its phase II project.

On April 18, 2008, pledging the receivables under the future power sales agreement of Ningde Phase I Construction Project, the interest in construction entrustment contract and the interest in the construction insurance, Ningde Nuclear signed the Common Terms Agreement with four financial institutions including Industrial and Commercial Bank of China to obtain a borrowing equivalent to RMB39.966 billion in aggregate. On December 30, 2011, Ningde Nuclear pledged the income rights to the electricity fee of the Ningde Phase I Construction Project based on the loan ratio, and signed the Special Facility Contract with Postal Savings Bank of China Limited to obtain a total borrowing amounting to RMB2 billion. The above borrowings were all used for the Ningde Nuclear Power Phase I Construction Project.

Note 3: According to the Commitment Letter on Land Use Rights and Equipment issued by Lingdong Nuclear to CDB, during the term of the loan contract, Lingdong Nuclear shall not, in any form, dispose of, including but not limited to sell, let or pledge, any of the equipment asset with an original value over USD500,000. As at December 31, 2019 and December 31, 2018, the above net asset owned by Lingdong amounted to RMB14,446,820,132.08 and RMB15,129,241,446.63, respectively.

According to the Maximum Mortgage Contract signed by SNPRI and Agricultural Bank of China Co., Ltd. Suzhou High-tech Zone Technology Industry Development Zone Branch in March 2016, SNPRI pledged the land use rights of and buildings on Xihuan Road owned by it. As at December 31, 2019 and December 31, 2018, the above net fixed assets owned by SNPRI amounted to RMB6,946,242.30 and RMB7,468,729.14, respectively.

According to the Mortgage Contract signed by CGN Engineering and CDB on April 26, 2019, CGN Engineering pledged the 1200T self-elevating offshore wind power installation platform owned by it. As at December 31, 2019, the above net fixed assets owned by CGN Engineering amounted to RMB409,520,674.80.

Note 4: According to the Maximum Mortgage Contract signed by SNPRI and Agricultural Bank of China Co., Ltd. Suzhou High-tech Zone Technology Industry Development Zone Branch in March 2016, SNPRI pledged the land use rights of and buildings on Xihuan Road owned by it. As at December 31, 2019 and December 31, 2018, the above net land use rights owned by SNPRI amounted to RMB51,550,838.07 and RMB52,901,515.05, respectively.

According to the RMB Loan Mortgage Contract signed by CNPRI and CDB in October 2017, CNPRI pledged the land use rights owned by it. As at December 31, 2019 and December 31, 2018, the above net land use rights owned by CNPRI amounted to RMB50,280,607.28 and RMB51,564,936.92, respectively.

According to the Loan Contract of China Guangdong Nuclear Power Engineering Building Agreement signed by CGN Engineering and ICBC on March 19, 2018, CGN Engineering pledged the land use rights of New Energy Industry Base owned by it. As at December 31, 2019 and December 31, 2018, the above net land use rights owned by CGN Engineering amounted to RMB347,400,280.08 and RMB376,966,261.44, respectively.

## 67. Foreign currency monetary items

### (1) Foreign currency monetary items

Item	December 31, 2019			December 31, 2018		
	Foreign currency balance	Exchange rate	RMB balance	Foreign currency balance	Exchange rate	RMB balance
Cash at bank and in hand			2,723,665,337.24			4,514,002,114.17
Including: HKD	9,941,559.35	0.8958	8,905,648.87	9,895,861.14	0.8762	8,670,753.54
USD	159,378,225.21	6.9762	1,111,854,374.74	279,257,573.95	6.8632	1,916,600,581.54
EUR	14,202,460.91	7.8155	110,999,333.26	10,458,922.00	7.8473	82,074,298.61
GBP	1,906,348.43	9.1501	17,443,278.77	2,096,242.16	8.6762	18,187,416.22
ZAR	47,648.45	0.4943	23,552.63	46,239.22	0.4735	21,894.26
RMB	1,474,439,148.97	1.0000	1,474,439,148.97	2,488,447,170.00	1.0000	2,488,447,170.00
Accounts receivable			68,824,504.64			327,250,762.80
Including: USD	1,814,352.14	6.9762	12,657,283.38	-	6.8632	-
EUR	6,535,920.07	7.8155	51,081,483.33	5,707,303.41	7.8473	44,786,922.05
GBP	429,379.42	9.1501	3,928,864.64	-	-	-
RMB	1,156,873.29	1.0000	1,156,873.29	282,463,840.75	1.0000	282,463,840.75
Other receivables			67,024,481.75			72,324,899.72
Including: USD	74,076.93	6.9762	516,775.49	218,760.04	6.8632	1,501,393.91
HKD	57,600.71	0.8958	51,598.72	7,602.00	0.8762	6,660.87
EUR	7,243,828.68	7.8155	56,614,143.02	6,491,750.05	7.8473	50,942,710.18
GBP	328,483.49	9.1501	3,005,656.75	428,874.33	8.6762	3,720,999.46
RMB	6,836,307.77	1.0000	6,836,307.77	16,153,135.30	1.0000	16,153,135.30
Accounts payable			1,471,467,105.44			551,606,986.04
Including: HKD	12,216,750.01	0.8958	10,943,764.66	11,187,905.51	0.8762	9,802,842.81
USD	19,726,280.34	6.9762	137,614,476.89	14,358,137.52	6.8632	98,542,769.43
EUR	110,541,825.11	7.8155	863,939,634.11	40,777,095.39	7.8473	319,990,100.63
GBP	1,232,370.85	9.1501	11,276,316.55	1,024,113.21	8.6762	8,885,411.05
JPY	9,891,739.16	0.0641	634,060.48	2,296,268.82	0.0619	142,139.04
RMB	443,146,728.33	1.0000	443,146,728.33	110,517,259.31	1.0000	110,517,259.31
CHF	543,139.39	7.2028	3,912,124.42	536,228.13	6.9494	3,726,463.77

# Notes to the Financial Statements

For the year ended December 31, 2019

Item	December 31, 2019			December 31, 2018		
	Foreign currency balance	Exchange rate	RMB balance	Foreign currency balance	Exchange rate	RMB balance
Other payables			414,028,677.72			416,912,557.66
Including: HKD	40,403.10	0.8958	36,193.10	40,405.00	0.8762	35,402.86
USD	393.52	6.9762	2,745.28	22.86	6.8632	156.86
EUR	1,203,640.15	7.8155	9,407,049.61	505,197.92	7.8473	3,964,439.64
GBP	-	9.1501	-	1.00	8.6762	8.68
RMB	404,582,689.73	1.0000	404,582,689.73	412,912,549.62	1.0000	412,912,549.62
Employee benefits payable			1,551,457.77			250,190.68
Including: RMB	1,551,457.77	1.0000	1,551,457.77	250,190.68	1.0000	250,190.68
Taxes payable			455,854,115.61			408,822,017.53
Including: RMB	455,854,115.61	1.0000	455,854,115.61	408,822,017.53	1.0000	408,822,017.53
Non-current liabilities due within one year			799,719,331.00			847,445,029.29
Including: USD	5,470,414.30	6.9762	38,162,704.24	5,470,414.30	6.8632	37,544,547.42
EUR	96,518,379.11	7.8155	754,339,391.93	103,207,534.04	7.8473	809,900,481.87
RMB	7,217,234.83	1.0000	7,217,234.83	-	1.0000	-
Short-term loans			17,280,571.70			2,675,102,597.14
Including: HKD	-	0.8958	-	1,755,307,007.53	0.8762	1,538,000,000.00
EUR	45.00	7.8155	351.70	144,903,673.51	7.8473	1,137,102,597.14
GBP	1,888,527.99	9.1501	17,280,220.00	-	8.6762	-
Long-term loans			5,845,621,244.94			6,693,073,537.83
Including: USD	30,087,278.52	6.9762	209,894,872.41	35,557,692.80	6.8632	244,039,557.22
EUR	721,096,074.79	7.8155	5,635,726,372.53	821,815,653.87	7.8473	6,449,033,980.61
Lease liabilities			16,920,304.86			
Including: RMB	16,920,304.86	1.0000	16,920,304.86	/	/	/

## (2) Description of overseas business entities

The sales customers of GNPJVC are mainly GNIC and HKNIC, and all of the sales are conducted in USD. During the period of preparation for the establishment of GNPJVC, the funds required for the construction of the nuclear power plant were mainly obtained from loans for financing, the funds from which were mainly long-term USD loans, and such loans from financing activities were repaid in USD. Therefore, GNPJVC selected USD as its reporting currency.

## (VI) Change of consolidation scope

### 1. Disposal of subsidiaries

Loss of control due to a single disposal of investment in subsidiaries

Unit: RMB

Name of subsidiary	Consideration of equity disposal	Percentage of equity disposed of (%)	Way of disposal	Time of losing control	Determination of basis of time of losing control	Difference between the consideration of disposal and the portion of net assets of such subsidiary attributable to the investment disposed of within the scope of consolidated financial statements	Percentage of the remaining equity as at the date of losing control	Book value of the remaining equity as at the date of losing control	Fair value of the remaining equity as at the date of losing control	Gains or losses arising from the remaining equity remeasured at fair value	Method and major assumptions used in the determination of fair value of the remaining equity as at the date of losing control	Amount transferred to investment gains or losses from other comprehensive income which is related to the equity investment in the former subsidiary
Shanghai Engineering Science & Technology Co., LTD (上海中廣核工程科技 有限公司)	719,569,857.28	100	Sold to related parties	January 31, 2019	Completion of the delivery of equity transfer	143,073,493.12	-	N/A	N/A	N/A	N/A	N/A

### 2. Change of consolidation scope for other reasons

Name of newly established subsidiary	Principal place of operation	Place of registration	Business nature	Time of establishment	Method of acquisition
Fujian Ninghe Power Sales Co., Ltd. (福建寧核售電有限公司)	Fuzhou, Fujian Province	Fuzhou, Fujian Province	Power sales, electricity supply and power distribution network maintenance service	June 2019	Establishment
Guangxi Fanghe Power Sales Co., Ltd. (廣西防核售電有限公司)	Fangchenggang, Guangxi	Fangchenggang, Guangxi	Electricity supply, power sales and power distribution network technical service	September 2019	Establishment
Shenzhen Hepeng Project Supervision Co., Ltd. (深圳市核騰工程監理有限公司)	Shenzhen, Guangdong Province	Shenzhen, Guangdong Province	Engineering supervision, engineering management and technical support service	December 2019	Establishment

# Notes to the Financial Statements

For the year ended December 31, 2019

## (VII) Interests in other entities

### 1. Interests in subsidiaries

#### (1) Constitution of the corporate group

Name of subsidiary	Principal place of operation	Place of registration	Business nature	Registered capital		Shareholding (%)		Method of acquisition
				31/12/2019	31/12/2018	Direct	Indirect	
GMC (Note 1)	Shenzhen, Guangdong Province	Shenzhen, Guangdong Province	Investment	16,000,000,000.00	16,000,000,000.00	100.00	-	Establishment
GMPVC (Note 2)	Shenzhen, Guangdong Province	Shenzhen, Guangdong Province	Nuclear power generation	3,327,160,000.00	3,327,160,000.00	-	75.00	Establishment
DMMC (Note 1)	Shenzhen, Guangdong Province	Shenzhen, Guangdong Province	Operations and management of nuclear power plant	250,000,000.00	250,000,000.00	-	87.50	Establishment
CGN Nuclear Power Investment Co., Ltd. (中廣核電投資有限公司)(Note 1)	Shenzhen, Guangdong Province	Shenzhen, Guangdong Province	Investment	100,000,000.00	100,000,000.00	77.78	-	Establishment
CGN Ningde Investment Co., Ltd. (中廣核寧德投資有限公司)(Note 1)	Shenzhen, Guangdong Province	Shenzhen, Guangdong Province	Investment	100,000,000.00	100,000,000.00	56.52	-	Establishment
Ling'ao Nuclear (Note 1)	Shenzhen, Guangdong Province	Shenzhen, Guangdong Province	Nuclear power generation	3,323,224,000.00	3,323,224,000.00	70.00	30.00	Establishment
Lingdong Nuclear (Note 1)	Shenzhen, Guangdong Province	Shenzhen, Guangdong Province	Nuclear power generation	5,348,000,000.00	5,348,000,000.00	25.00	75.00	Establishment
Yangjiang Nuclear (Note 2)	Yangjiang, Guangdong Province	Yangjiang, Guangdong Province	Nuclear power generation	15,506,000,000.00	15,506,000,000.00	34.00	25.00	Establishment
China Nuclear Power Operations Co., Ltd. (中廣核電運營有限公司)(Note 1)	Shenzhen, Guangdong Province	Shenzhen, Guangdong Province	Provision of management, technology and consultancy services	100,000,000.00	100,000,000.00	100.00	-	Establishment
China Nuclear Power Technology Research Institute Co., Ltd. (中廣核研究院有限公司)(Note 1)	Shenzhen, Guangdong Province	Shenzhen, Guangdong Province	Nuclear power technology development	1,225,550,000.00	945,550,000.00	100.00	-	Establishment
Inspection Company (Note 2)	Shenzhen, Guangdong Province	Shenzhen, Guangdong Province	Testing and maintenance of power stations	230,000,000.00	230,000,000.00	-	81.52	Establishment
Guangdong Daya Bay Nuclear Power Environment Protection Co., Ltd. (廣東大亞灣核電環境保護有限公司)(Note 1)	Shenzhen, Guangdong Province	Shenzhen, Guangdong Province	Environment protection relating to nuclear power	30,000,000.00	30,000,000.00	100.00	-	Establishment
CGN Nuclear Power (Shenzhen) Radiation Monitoring Technology Co., Ltd. (中廣核(深圳)輻射監測技術有限公司)(Note 1)	Shenzhen, Guangdong Province	Shenzhen, Guangdong Province	Radiation detection and evaluation, instrument verification	6,000,000.00	6,000,000.00	-	100.00	Establishment
China Daya Bay Nuclear Power Technology Research Institute Co., Ltd. (中國大亞灣核電技術研究院有限公司)(Note 1)	Beijing, Suzhou, Jiangsu Province	Beijing, Suzhou, Jiangsu Province	Nuclear power technology development	23,500,000.00	23,500,000.00	-	100.00	Business combination not under same control
SNPRI (Note 1)	Beijing, Ningde, Fujian Province	Suzhou, Jiangsu Province	Nuclear power technology development	513,950,000.00	513,950,000.00	100.00	-	Business combination not under same control
CNPSTC (Note 2)	Beijing, Ningde, Fujian Province	Beijing, Ningde, Fujian Province	Nuclear power technology development	20,000,000.00	20,000,000.00	-	75.00	Business combination not under same control
Ningde Nuclear (Note 1)	Fujian Province	Fujian Province	Nuclear power generation	11,177,500,000.00	11,177,500,000.00	-	46.00	Business combination not under same control

Name of subsidiary	Principal place of operation	Place of registration	Business nature	Registered capital		Shareholding (%)		Method of acquisition
				31/12/2019	31/12/2018	Direct	Indirect	
Taishan Nuclear (Note 2)	Taishan, Guangdong Province	Taishan, Guangdong Province	Nuclear power generation	28,600,000,000.00	24,400,000,000.00	12.50	57.50	Business combination under same control
Taishan Investment (Note 1)	Taishan, Guangdong Province	Taishan, Guangdong Province	Investment	30,000,000.00	30,000,000.00	60.00	-	Business combination under same control
CGN Engineering (Note 1)	Shenzhen, Guangdong Province	Shenzhen, Guangdong Province	Construction	1,286,000,000.00	1,286,000,000.00	100.00	-	Business combination under same control
CGN Design (Note 1)	Shenzhen, Guangdong Province	Shenzhen, Guangdong Province	Construction design	79,360,000.00	79,360,000.00	-	60.00	Business combination under same control
Worldwide Engineering CGNPC AREVA Nuclear Co., Ltd. (中法國際核能工程有限公司)(Note 2)	Shenzhen, Guangdong Province	Shenzhen, Guangdong Province	Other professional technical support	280,000,000.00	280,000,000.00	-	55.00	Business combination under same control
CGN Import & Export Co., Ltd. (中廣核進出口有限公司)(Note 1)	Shenzhen, Guangdong Province	Shenzhen, Guangdong Province	Import and export trade	30,000,000.00	30,000,000.00	-	100.00	Business combination under same control
Fangchenggang Nuclear (Note 1)	Fangchenggang, Guangxi	Fangchenggang, Guangxi	Nuclear power generation	5,850,000,000.00	5,850,000,000.00	-	61.00	Business combination under same control
Lufeng Nuclear (Note 1)	Shanwei, Guangdong Province	Shanwei, Guangdong Province	Nuclear power generation	3,478,000,000.00	3,278,000,000.00	100.00	-	Business combination under same control
Power Sales Company (Note 1)	Shenzhen, Guangdong Province	Shenzhen, Guangdong Province	Nuclear power generation	210,000,000.00	210,000,000.00	100.00	-	Business combination under same control
Ocean Power (Note 1)	Tianjin, Chengde, Hebei Province	Tianjin, Chengde, Hebei Province	Sales of electricity	10,000,000.00	10,000,000.00	100.00	-	Business combination under same control
Hebei Thermal Power (Note 1)	Yanjiang, Hebei Province	Yanjiang, Hebei Province	Development, construction and operations of offshore power stations	10,000,000.00	10,000,000.00	100.00	-	Business combination under same control
Yangxi Nuclear Power Co., Ltd. (陽西核電有限公司)(Note 1)	Guangdong Province, Fangchenggang, Guangxi	Guangdong Province, Fangchenggang, Guangxi	Thermal power development investment, construction and operations of nuclear power plants	30,000,000.00	30,000,000.00	-	51.00	Establishment
Fangchenggang Investment (Note 1)	Guangxi, Qinghai, Hebei Province	Guangxi, Qinghai, Hebei Province	Investment	30,000,000.00	30,000,000.00	60.00	-	Establishment
Hebei Zhongzhuang Clean Thermal Energy Co., Ltd. (河北中環清潔熱能有限公司)(Note 1)	Hebei Province	Hebei Province	Thermal power generation	81,700,000.00	81,700,000.00	100.00	-	Establishment
Sansha Advanced Energy Co., Ltd. (三沙先進能源有限公司)(Note 1)	Sansha, Hainan Province	Sansha, Hainan Province	Island energy development, smart grid investment, transmission and distribution, sales of electricity	10,000,000.00	6,000,000.00	-	60.00	Establishment
Fujian Ninghe Power Sales Co., Ltd. (福建寧核售電有限公司)(Note 1)	Fuzhou, Fujian Province	Fuzhou, Fujian Province	Power sales, electricity supply and power distribution network maintenance service	20,000,000.00	N/A	-	100.00	Establishment
Guangxi Fanghe Power Sales Co., Ltd. (廣西防核售電有限公司)(Note 1)	Fangchenggang, Guangxi	Fangchenggang, Guangxi	Electricity supply, power sales and power distribution network technical service	201,000,000.00	N/A	-	100.00	Establishment
Shenzhen Hepeng Project Supervision Co., Ltd. (深圳市核聯工程監理有限公司)(Note 1)	Shenzhen, Guangdong Province	Shenzhen, Guangdong Province	Engineering supervision, engineering management and technical support service	3,000,000.00	N/A	-	100.00	Establishment

Note 1: The company is a limited liability company established in the PRC.

Note 2: The company is a sino-foreign joint venture limited liability company.

Note 3: As at 31 December 2019, none of the subsidiaries issued any debt securities.

Basis for only holding half or less voting rights but still having control over the investees, as well as holding 50% or more voting rights but not having control over the investees:

CGN Ninghe Investment, a subsidiary of the Company, holds 46% of the voting rights of Ningde Nuclear. In December 2016, CGN Ninghe Investment and Datang International Power Generation Co., Ltd. (大唐國際發電股份有限公司) entered into the Concerted Party Agreement. Datang International Power Generation Co., Ltd. agreed to act in concert with CGN Ninghe Investment at the shareholders' meetings and the meetings of board of directors of Ningde Nuclear. Datang International Power Generation Co., Ltd. holds 44% equity interest in Ningde Nuclear. Therefore, after signing the Concerted Party Agreement, the Group can thus lead the relevant activities of Ningde Nuclear. Since January 1, 2017, the Group has obtained the control over Ningde Nuclear, which has been consolidated into the Group's consolidated financial statements. Ningde Nuclear has been changed from a joint venture of the Group to a subsidiary of the Group with unchanged shareholding.

# Notes to the Financial Statements

For the year ended December 31, 2019

## (2) Significant non-wholly-owned subsidiaries

Unit: RMB

Name of subsidiary	Shareholding of non-controlling shareholders	Gains or losses attributable to non-controlling shareholders in 2019	Dividends announced to be distributed to non-controlling shareholders in 2019	Balance of non-controlling interests as at December 31, 2019
Yangjiang Nuclear	41.00%	1,999,857,156.73	1,480,384,034.13	9,014,432,536.67
Taishan Nuclear	30.00%	179,787,160.10	–	8,785,977,143.59
GNPJVC	25.00%	845,425,901.85	14,410,626.59	2,239,820,566.56
CGN Nuclear Power Investment Co., Ltd.	22.22%	258,323,409.74	35,996,400.00	2,998,445,404.14
CGN Ninghe Investment Co., Ltd.	43.48%	393,317,998.71	350,448,800.00	3,055,934,359.63
Ningde Nuclear	54.00%	1,060,832,147.65	1,085,770,258.40	7,757,595,805.70
Taishan Investment	40.00%	127,123,353.58	–	5,980,914,308.82
Fangchenggang Investment	40.00%	214,085,798.48	30,000,000.00	3,000,367,519.67
Fangchenggang Nuclear	39.00%	330,237,540.65	234,910,111.09	2,637,838,664.10
<b>Total</b>		<b>5,408,990,467.49</b>	<b>3,231,920,230.21</b>	<b>45,471,326,308.88</b>

Name of subsidiary	Shareholding of non-controlling shareholders	Gains or losses attributable to non-controlling shareholders in 2018	Dividends announced to be distributed to non-controlling shareholders in 2018	Balance of non-controlling interests as at December 31, 2018
Yangjiang Nuclear	41.00%	1,780,390,637.56	–	8,494,959,414.07
Taishan Nuclear	30.00%	17,619,246.03	–	7,346,189,983.49
GNPJVC	25.00%	765,884,514.16	1,583,371,615.20	1,377,630,134.33
CGN Nuclear Power Investment Co., Ltd.	22.22%	326,104,121.71	183,648,716.30	2,669,179,889.72
CGN Ninghe Investment Co., Ltd.	43.48%	443,411,663.31	89,108,340.67	3,013,065,160.92
Ningde Nuclear	54.00%	1,196,779,738.05	–	7,782,533,916.45
Taishan Investment	40.00%	22,196,686.06	–	5,853,790,955.24
Fangchenggang Investment	40.00%	136,281,374.76	–	2,816,281,721.19
Fangchenggang Nuclear	39.00%	261,476,257.41	–	2,542,511,234.54
<b>Total</b>		<b>4,950,144,239.05</b>	<b>1,856,128,672.17</b>	<b>41,896,142,409.95</b>

### (3) Significant financial information of significant non-wholly-owned subsidiaries

Unit: RMB

Name of subsidiary	Balance at December 31, 2019					
	Current assets	Non-current assets	Total assets	Current liabilities	Non-current liabilities	Total liabilities
Yangjiang Nuclear	10,558,062,299.91	71,294,953,110.67	81,853,015,410.58	15,221,788,264.94	44,644,806,324.49	59,866,594,589.43
Taishan Nuclear	4,829,550,499.72	92,708,047,809.10	97,537,598,308.82	11,357,889,060.74	56,893,118,769.41	68,251,007,830.15
GNPJVC	6,955,587,274.16	6,369,025,645.72	13,324,612,919.88	1,755,950,418.24	2,609,380,235.52	4,365,330,653.76
CGN Nuclear Power Investment Co., Ltd.	848,061.55	13,493,518,655.55	13,494,366,717.10	13,080.00	-	13,080.00
CGN Ninghe Investment Co., Ltd.	6,434,640,669.61	45,629,626,168.51	52,064,266,838.12	7,472,263,914.79	29,806,039,260.93	37,278,303,175.72
Including: Ningde Nuclear	6,433,824,759.22	45,210,383,495.19	51,644,208,254.41	7,472,250,834.79	29,806,039,260.93	37,278,290,095.72
Taishan Investment	108,249,840.27	14,844,191,187.83	14,952,441,028.10	155,256.06	-	155,256.06
Fangchenggang Investment	5,291,802,659.21	44,835,258,140.51	50,127,060,799.72	8,469,361,348.95	31,518,941,987.49	39,988,303,336.44
Including: Fangchenggang Nuclear	4,405,760,590.08	44,835,258,140.51	49,241,018,730.59	10,958,387,860.78	31,518,941,987.49	42,477,329,848.27
Total	34,178,741,304.43	289,174,620,717.89	323,353,362,022.32	44,277,421,343.72	165,472,286,577.84	209,749,707,921.56

Unit: RMB

Name of subsidiary	Balance at December 31, 2018					
	Current assets	Non-current assets	Total assets	Current liabilities	Non-current liabilities	Total liabilities
Yangjiang Nuclear	10,521,417,499.55	69,876,168,950.30	80,397,586,449.85	15,181,586,175.64	44,496,587,069.17	59,678,173,244.81
Taishan Nuclear	3,531,539,590.98	89,043,806,074.44	92,575,345,665.42	7,795,663,681.21	60,292,382,039.22	68,088,045,720.43
GNPJVC	8,678,246,710.95	4,028,179,047.52	12,706,425,758.47	4,823,030,754.03	2,372,874,467.23	7,195,905,221.26
CGN Nuclear Power Investment Co., Ltd.	1,307,876.81	12,390,163,084.66	12,391,470,961.47	378,960,325.34	-	378,960,325.34
CGN Ninghe Investment Co., Ltd.	5,645,024,303.08	47,006,176,220.03	52,651,200,523.11	5,974,385,282.49	31,964,508,680.69	37,938,893,963.18
Including: Ningde Nuclear	5,643,214,692.19	46,586,933,546.71	52,230,148,238.90	5,853,539,712.95	31,964,508,680.69	37,818,048,393.64
Taishan Investment	2,097,359,167.96	12,564,528,184.34	14,661,887,352.30	3,288,899.52	24,121,064.69	27,409,964.21
Fangchenggang Investment	4,368,063,757.11	39,731,885,187.08	44,099,948,944.19	6,519,225,260.35	27,997,508,146.33	34,516,733,406.68
Including: Fangchenggang Nuclear	3,558,881,889.81	39,731,885,187.08	43,290,767,076.89	8,773,999,354.82	27,997,508,146.33	36,771,507,501.15
Total	34,842,958,906.44	274,640,906,748.37	309,483,865,654.81	40,676,140,378.58	167,147,981,467.33	207,824,121,845.91



## (2) Significant financial information of significant associates

Unit: RMB

Item	31 December 2019/2019			December 31, 2018/2018		
	Hongyanhe Nuclear	CGN Fund Phase I	CGN Finance	Hongyanhe Nuclear	CGN Fund Phase I	CGN Finance
Current assets	7,062,873,331.90	2,077,401.60	36,728,586,972.77	7,515,714,324.09	140,858,272.70	27,688,019,573.95
Non-current assets	67,792,124,641.70	7,890,462,525.79	6,110,195,193.32	64,271,892,321.38	7,429,637,279.21	6,794,084,497.56
Total assets	74,854,997,973.60	7,892,539,927.39	42,838,782,166.09	71,787,606,645.47	7,570,495,551.91	34,482,104,071.51
Current liabilities	7,946,827,278.45	23,200.50	38,302,079,872.24	7,356,204,043.13	335,878.24	30,714,938,944.75
Non-current liabilities	50,615,136,111.68	-	-	49,077,854,592.72	-	-
Total liabilities	58,561,963,390.13	23,200.50	38,302,079,872.24	56,434,058,635.85	335,878.24	30,714,938,944.75
Equity attributable to the shareholders of the parent company	16,293,034,583.47	7,892,516,726.89	4,536,702,293.85	15,353,548,009.62	7,570,159,673.67	3,767,165,126.76
Share of net assets calculated as per shareholding	7,331,865,562.56	2,480,507,512.03	1,361,010,688.16	6,909,096,604.33	2,379,195,239.01	1,130,149,538.02
Adjustments						
- Unrealized profits of internal transactions	(665,297,659.20)	(62,470,105.78)	-	(763,013,942.68)	(62,470,171.59)	-
Book value of equity investment in associates	6,666,567,903.36	2,418,037,406.25	1,361,010,688.16	6,146,082,661.65	2,316,725,067.42	1,130,149,538.02
Operating revenue	9,530,426,147.45	-	1,222,414,347.71	8,937,928,340.67	-	1,135,351,979.31
Net profit	1,070,495,944.09	947,357,053.22	598,344,675.80	1,333,890,411.38	960,346,581.33	(4,527,953.89)
Other comprehensive income	-	-	-	-	-	-
Total comprehensive income	1,070,495,944.09	947,357,053.22	598,344,675.80	1,333,890,411.38	960,346,581.33	(4,527,953.89)
Dividends received from associates for the year	540,225,616.61	242,000,220.00	68,642,252.61	180,689,549.21	226,285,920.00	41,042,788.79

## (3) Consolidated financial information of insignificant associates

Unit: RMB

Item	31 December 2019/2019	December 31, 2018/2018
Joint ventures:		
Total book value of investment	-	-
The sum of the following items calculated as per shareholding		
- Net profit	-	(687,161.62)
- Other comprehensive income	-	-
- Total comprehensive income	-	(687,161.62)
Associates:		
Total book value of investment	753,675,812.76	610,065,909.83
The sum of the following items calculated as per shareholding		
- Net profit	73,792,002.06	65,924,730.25
- Other comprehensive income	-	(788,366.06)
- Total comprehensive income	73,792,002.06	65,136,364.19

## (4) As at December 31, 2019, there was no significant restriction on capacity of capital transfer from associates to the Group.

# Notes to the Financial Statements

For the year ended December 31, 2019

## (VIII) Risks Relevant to Financial Instruments

Major financial instruments of the Group include cash at bank and in hand, derivative financial instruments, bills receivable, accounts receivable, other receivables, loans, bills payable, accounts payable, other payables, bonds payable etc. See Note (V) for details of the financial instruments. The following are risks relevant to these financial instruments and the risk management policies taken by the Group for reducing these risks. The management of the Group managed and supervised these risk exposures to keep the said risks under control.

The Group adopts sensitivity analysis method to analyze the potential impact of possible appropriate change in risk variables on current profits & losses or the shareholders' equity. As any risk variable seldom changes alone and correlation between variables greatly accounts for the final amount influenced by change of a certain risk variable, the following content is conducted under the assumption that change of each variable is independent.

### 1. Risk management objectives and policies

The Group's risk management objective is to achieve balance between risks and return, minimize the adverse effect of risks on the operating results of the Group and maximize the interests of shareholders and other equity investors. To achieve the said objective, the Group formulated a basic strategy of defining and analyzing various risks faced by the Group, setting a bottom line of risk tolerance and conducting timely and reliable supervision on the risks to keep them under control.

#### 1.1 Market risk

##### 1.1.1 Foreign exchange risk

Foreign exchange risk represents the risk of loss due to exchange rate changes. The Group's exposure to foreign exchange risk is mainly related to USD, EURO and GBP. Except for the GNPJVC which mainly conducts sales in USD, the Group's other major business activities are denominated and settled in RMB. On December 31, 2019, except for the following assets and liabilities, which are non-functional currency balances, the assets and liabilities of the Group are functional currency balances. The foreign exchange risk arising from the assets and liabilities of the foreign currency balances described below may have an impact on the Group's operating results.

## (1) Foreign currency assets and liabilities of the Group denominated in RMB

Unit: RMB

Item	December 31, 2019	December 31, 2018
Cash at bank and in hand – HKD	8,865,950.01	8,541,348.92
Cash at bank and in hand – USD	1,111,854,374.74	1,916,600,581.54
Cash at bank and in hand – EUR	110,888,992.80	81,859,317.43
Cash at bank and in hand – GBP	17,406,120.94	16,438,882.63
Cash at bank and in hand – ZAR	23,552.63	21,894.26
Accounts receivable – USD	12,657,283.38	–
Accounts receivable – EUR	51,081,483.33	44,786,922.05
Accounts receivable – GBP	3,928,864.64	–
Other receivables – USD	516,775.49	1,501,393.91
Other receivables – EUR	56,614,143.02	50,942,710.18
Other receivables – GBP	3,005,656.75	3,720,999.46
Other receivables – HKD	44,789.00	–
Accounts payable – HKD	4,484,038.30	4,386,025.99
Accounts payable – USD	137,614,476.89	98,542,769.43
Accounts payable – EUR	859,625,033.56	315,678,255.69
Accounts payable – GBP	10,917,642.88	8,177,288.50
Accounts payable – JPY	634,060.48	142,139.04
Accounts payable – CHF	3,912,124.42	3,726,463.77
Other payables – HKD	6,809.72	6,661.75
Other payables – USD	2,745.28	156.86
Other payables – EUR	9,407,049.61	3,964,439.64
Other payables – GBP	–	8.68
Non-current liabilities due within one year – USD	38,162,704.24	37,544,547.42
Non-current liabilities due within one year – EUR	754,339,391.93	809,900,481.87
Short-term loans – HKD	–	1,538,000,000.00
Short-term loans – EUR	351.70	1,137,102,597.14
Short-term loans – GBP	17,280,220.00	–
Long-term loans – USD	209,894,872.41	244,039,557.22
Long-term loans – EUR	5,635,726,372.53	6,449,033,980.61

# Notes to the Financial Statements

For the year ended December 31, 2019

## (2) Foreign currency assets and liabilities of the Group denominated in USD

Unit: RMB

Item	December 31, 2019	December 31, 2018
Cash at bank and in hand – RMB	1,474,439,148.97	2,488,447,170.00
Cash at bank and in hand – GBP	37,157.83	1,748,533.59
Cash at bank and in hand – HKD	39,698.86	129,404.62
Cash at bank and in hand – EUR	110,340.46	214,981.18
Accounts receivable – RMB	1,156,873.29	282,463,840.75
Other receivables – RMB	6,836,307.77	16,153,135.30
Other receivables – HKD	6,809.72	6,660.87
Accounts payable – RMB	443,146,728.33	110,517,259.31
Accounts payable – HKD	6,459,726.36	5,416,816.82
Accounts payable – GBP	358,673.67	708,122.55
Accounts payable – EUR	4,314,600.55	4,311,844.94
Other payables – RMB	404,582,689.73	412,912,549.62
Other payables – HKD	29,383.38	28,741.11
Non-current liabilities due within one year – RMB	7,217,234.83	–
Lease liabilities – RMB	16,920,304.86	/

The management of the Group pays close attention to the influence of exchange rate fluctuations on the foreign exchange risk of the Group, and would consider hedging significant foreign exchange risk when necessary.

## Sensitivity analysis of exchange rate risks

The reasonable movements of exchange rate with all other variables unchanged may have the following impacts (before tax) on current profit or loss and shareholders' equity:

Foreign currency appreciation/depreciation denominated in RMB:

			Unit: RMB	
		2019	2018	
Exchange rate change				
5% appreciation		(315,255,995.36)	(426,291,566.16)	
5% depreciation		315,255,995.36	426,291,566.16	

RMB and other foreign currency appreciation/depreciation denominated in USD:

			Unit: RMB	
		2019	2018	
Exchange rate change				
5% appreciation		29,979,849.76	112,763,419.60	
5% depreciation		(29,979,849.76)	(112,763,419.60)	

Financial assets and financial liabilities held by the Group at FVTPL are measured at fair value at the balance sheet date. For forward foreign exchange contracts and currency swap contracts, the Group bears the risk of changes in exchange rate prices and closely monitors the impact of price changes on the Group.

Since the fair values of certain financial instruments are determined by a general pricing model based on the discounted future cash flow method or other valuation techniques, and the valuation techniques themselves are based on certain valuation assumptions, as such, the valuation results are significantly sensitive to the valuation assumptions. Based on the valuation assumptions, the before-tax effects of reasonable movements of prices on current profit or loss and shareholders' equity are as follows, with other variables unchanged:

						Unit: RMB	
Forward foreign exchange contracts	Changes in exchange rate prices	2019		2018		Effect on profit	Effect on shareholders' equity
		Effect on profit	Effect on shareholders' equity	Effect on profit	Effect on shareholders' equity		
Derivative financial instruments	Increase by 5%	6,408,859.84	6,408,859.84	-	-	-	-
Derivative financial instruments	Decrease by 5%	(5,798,496.75)	(5,798,496.75)	-	-	-	-

						Unit: RMB	
Currency swap contracts	Changes in exchange rate prices	2019		2018		Effect on profit	Effect on shareholders' equity
		Effect on profit	Effect on shareholders' equity	Effect on profit	Effect on shareholders' equity		
Derivative financial instruments	Increase by 5%	-	-	74,349,462.75	74,349,462.75	-	-
Derivative financial instruments	Decrease by 5%	-	-	(74,349,462.75)	(74,349,462.75)	-	-

# Notes to the Financial Statements

For the year ended December 31, 2019

## 1.1.2 Interest rate risk – risk of changes in cash flow

The Group's risk of changes in cash flow of financial instruments which arise from changes in interest rates is mainly associated with bank loans at floating rate (see Note (V) 24, 33 and 35 for details). The Group continues to closely monitor the impact of interest rate changes on the Group's interest rate risk. The policies of the Group aim at maintaining the floating rates of these loans and there is not any interest rate swap arrangement at present.

### Sensitivity analysis of interest rate risk

The sensitivity analysis of interest rate risk is conducted based on the following assumptions:

- Changes in market interest rate influence interest income or expense of variable-rate financial instruments;
- As for fixed-rate financial instruments measured at fair value, market interest rates only influence its interest income or expense;
- Changes in fair value of derivative financial instruments and other financial assets and liabilities are calculated by using discounted cash flow method and in accordance with the market interest rate on the balance sheet date.

Based on the assumptions above, if other variables remain unchanged, the before-tax impacts of potential reasonable movements of interest rate on current profit or loss and shareholders' equity are as follows:

Unit: RMB

Item	Change in interest rate	2019	2018
Short-term loans	Increase by 1%	(69,972,805.72)	(74,379,751.95)
Short-term loans	Decrease by 1%	69,972,805.72	74,379,751.95
Non-current liabilities due within one year	Increase by 1%	(136,516,447.22)	(87,211,165.65)
Non-current liabilities due within one year	Decrease by 1%	136,516,447.22	87,211,165.65
Long-term loans	Increase by 1%	(1,509,908,274.87)	(1,594,388,919.01)
Long-term loans	Decrease by 1%	1,509,908,274.87	1,594,388,919.01

Financial assets and financial liabilities held by the Group at FVTPL are measured at fair value at the balance sheet date. For interest rate swap contracts, the Group bears the risk of changes in exchange rate prices and closely monitors the impact of price changes on the Group.

Since the fair values of certain financial instruments are determined by a general pricing model based on the discounted future cash flow method or other valuation techniques, and the valuation techniques themselves are based on certain valuation assumptions, as such, the valuation results are significantly sensitive to the valuation assumptions. Based on the valuation assumptions, the before-tax effects of reasonable movements of prices on current profit or loss and shareholders' equity are as follows, with other variables unchanged:

Unit: RMB

Interest rate swap contracts	Changes in interest rate prices	2019		2018	
		Effect on profit	Effect on shareholders' equity	Effect on profit	Effect on shareholders' equity
Derivative financial instruments	Increase by 0.5%	531,321.74	531,321.74	1,654,625.76	1,654,625.76
Derivative financial instruments	Decrease by 0.5%	(531,321.74)	(531,321.74)	(1,654,625.76)	(1,654,625.76)

## 1.2 Credit risk

On the balance sheet date, the maximum exposure to credit risk that may cause financial losses to the Group mainly arises from the losses incurred to the financial assets of the Group due to the failure of the other party to perform its obligations, which specifically include:

The carrying amount of the financial assets recognized in the consolidated balance sheet. For financial instruments measured at fair value, the book value reflects its risk exposure, but it is not the maximum risk exposure, and its maximum risk exposure will vary in line with future changes in fair value.

In order to reduce credit risk, the Group reviews the collection of each individual receivable on each statement of financial position date to ensure that adequate bad debt provision is made for relevant financial assets. As a result, the management of the Group believes that the credit risk assumed by the Group has been significantly reduced.

The Group had taken necessary measures to make sure all customers have a good credit record. Except the top five accounts receivables, the Group had no other significant credit risk exposure concentrated at a single financial asset or a portfolio of financial assets with similar characteristics.

Unit: RMB

Item	December 31, 2019	December 31, 2018
Accounts receivable – Guangdong Power Grid Co., Ltd.	4,038,772,467.85	3,549,360,763.92
Accounts receivable – Fujian Electric Power Co., Ltd.	1,062,491,310.22	709,256,387.61
Accounts receivable – Guangxi Power Grid Co., Ltd.	449,436,016.42	546,981,863.78
Accounts receivable – HKNIC	412,532,043.36	453,284,714.66
Accounts receivable – Hongyanhe Nuclear	238,258,061.13	203,739,590.93
Accounts receivable – CGNPC Zhejiang Daishan Offshore Wind Power Co., Ltd. (中廣核浙江岱山海上風力發電有限公司)	340,036,781.81	–
Other receivables – CLP Nuclear Power (Yangjiang) Limited	–	300,843,139.00
<b>Total</b>	<b>6,541,526,680.79</b>	<b>5,763,466,459.90</b>

## 1.3 Liquidity risk

In the management of the liquidity risk, the Group monitors and maintains a level of cash and cash equivalents deemed adequate by the management to finance the Group's operations and mitigate the effects of fluctuations in cash flows. The management monitors the utilization of bank loans and ensures compliance with loan agreements.

As at December 31, 2019, the current liabilities of the Group exceeded the current assets and amounted to RMB5,094,516,421.41. The Group had unutilized loan facilities from banks and other financial institutions amounting to RMB137,647,713,640.81. The management of the Group is of the view that the Group would have adequate financial resources to settle the financial obligations and commitments in future. Therefore, the financial statements have been prepared on the basis of going concern.

# Notes to the Financial Statements

For the year ended December 31, 2019

The following is the maturity analysis for financial liabilities held by the Group which is based on undiscounted remaining contractual obligations:

Unit: RMB

Item	December 31, 2019			Total
	Within one year	One to five years	Over five years	
<b>Non-derivative financial liabilities:</b>				
Short-term loans	14,308,993,550.41	-	-	14,308,993,550.41
Bills payable	2,618,383,795.01	-	-	2,618,383,795.01
Accounts payable	19,983,479,765.09	-	-	19,983,479,765.09
Other payables	3,817,756,635.31	-	-	3,817,756,635.31
Non-current liabilities due within one year	22,913,012,330.79	-	-	22,913,012,330.79
Long-term loans	7,480,108,779.31	58,869,218,861.14	167,423,300,267.95	233,772,627,908.40
Bonds payable	405,850,000.00	9,447,753,921.36	-	9,853,603,921.36
Lease liabilities	-	526,448,039.22	328,195,930.51	854,643,969.73

## 2. Transfer of financial assets

- (1) As at December 31, 2019, the Group did not have financial assets that have been transferred but not derecognized.
- (2) As at December 31, 2019, the Group did not have financial assets that have been derecognized but continued its involvement in transferred financial assets.

## (IX) Disclosure of Fair Value

### 1. Closing fair value of assets and liabilities measured at fair value

Unit: RMB

Item	December 31, 2019			Total
	Level 1 fair value measurement	Level 2 fair value measurement	Level 3 fair value measurement	
<b>Recurring fair value measurement</b>				
Forward foreign exchange contracts	-	3,149,401.93	-	3,149,401.93
Interest rate swap contracts	-	245,345.98	-	245,345.98
Other investment in equity instruments	-	281,155,000.00	110,000,000.00	391,155,000.00
<b>Total assets continuously measured at fair value</b>	-	284,549,747.91	110,000,000.00	394,549,747.91
Cash-settled share-based payment	-	(78,312,817.00)	-	(78,312,817.00)
<b>Total liabilities continuously measured at fair value</b>	-	(78,312,817.00)	-	(78,312,817.00)

Unit: RMB

Item	December 31, 2018			Total
	Level 1 fair value measurement	Level 2 fair value measurement	Level 3 fair value measurement	
<b>Recurring fair value measurement</b>				
Currency swap contracts	-	4,753,642.10	-	4,753,642.10
Interest rate swap contracts	-	4,461,761.04	-	4,461,761.04
Other investment in equity instruments	-	312,689,500.00	110,000,000.00	422,689,500.00
<b>Total assets continuously measured at fair value</b>	-	321,904,903.14	110,000,000.00	431,904,903.14
Currency swap contracts	-	(2,724,971.67)	-	(2,724,971.67)
Cash-settled share-based payment	-	(61,728,273.40)	-	(61,728,273.40)
<b>Total liabilities continuously measured at fair value</b>	-	(64,453,245.07)	-	(64,453,245.07)

# Notes to the Financial Statements

For the year ended December 31, 2019

## 2. Qualitative and quantitative information of valuation techniques and important parameters adopted for recurring level 2 fair value measurements

Unit: RMB

Item	Fair value at December 31, 2019	Fair value at December 31, 2018		
		Valuation technique	Inputs	
Forward foreign exchange contracts	3,149,401.93	-	Discounted cash flow method	Forward foreign exchange rate
Currency swap contracts	-	2,028,670.43	Discounted cash flow method	U.S. swap for 2-30 years, swap rate, RMB-denominated interest rate, price volatility, risk free rate, contracted interest rates
Interest rate swap contracts	245,345.98	4,461,761.04	Discounted cash flow method	U.S. swap for 2-30 years, swap rate, RMB-denominated interest rate, price volatility, risk free rate, contracted interest rates
Other investment in equity instruments	281,155,000.00	312,689,500.00	Listed company comparison method	Net profit attributable to the parent company during the reporting period, average price-earnings ratio of comparable companies, liquidity discount ratio of the investee
Cash-settled share-based payment	(78,312,817.00)	(61,728,273.40)	Black-Scholes Model	Share price, expected volatility, expected dividend yield

## 3. Qualitative and quantitative information of valuation techniques and important parameters adopted for recurring level 3 fair value measurements

Unit: RMB

Item	Fair value at December 31, 2019	Fair value at December 31, 2018		
		Valuation technique	Inputs	
Other investment in equity instruments	110,000,000.00	110,000,000.00	Investments cost method	Investment costs

## 4. Reconciliation between the opening and closing carrying amount for recurring level 3 fair value measurements

Unit: RMB

Item	January 1, 2019	Transfer into Level 3	Transfer out of Level 3	Gains or loss for the period			December 31, 2019
				Included in profit or loss	Included in other comprehensive income	Purchase, issuance, sale and settlement	
Other investment in equity instruments	110,000,000.00	-	-	-	-	-	110,000,000.00

## 5. Fair value of financial assets and financial liabilities not measured at fair value

The management of the Group believes that the book values of financial assets and financial liabilities measured at amortized cost in the financial statements are close to the fair values of the same.

## (X) Related Parties and Related Party Transactions

### 1. Parent company of the Company

Name of company	Place of registration	Nature of business	Registered capital	Shareholding of the parent company in the Company (%)	Voting rights of the parent company in the Company (%)
CGNPC	Shenzhen, China	Nuclear power industry	RMB14,873.37 million	57.78	57.78

The parent company of the Company is CGNPC. The ultimate actual controlling shareholder is the SASAC of the State Council.

### 2. Subsidiaries of the Company

Details of the subsidiaries of the Company are set out in Note (VII)1.

### 3. Joint ventures and associates of the Company

Details of the significant joint ventures and associates of the Company are set out in Note (VII)2.

Other joint ventures or associates which conduct related party transactions with the Group, or have balance arising from related party transactions with the Group in prior periods are as follows:

Name of joint venture or associate	Relationship with the Company
Beijing Ric Nuclear Instrument Joint Venture Co., Ltd. (北京中法瑞克核儀器有限公司) (Note)	Joint venture
Ningde Second Nuclear	Associate
Hongyanhe Nuclear	Associate
China Nuclear Industry 23 Construction Co., Ltd.	Associate
CIECC Engineering Company Limited	Associate
CGN Finance	Associate, under the control of the same party
CGN Fund Phase I	Associates, a non-controlling shareholder with significant influence on subsidiaries

Note: On December 29, 2017, the third session of the board of directors of Beijing Ric Nuclear Instrument Joint Venture Co., Ltd. (北京中法瑞克核儀器有限公司) decided to deregister the company and established a liquidation team on the same date by adopting resolution number 16. The company completed the industrial and commerce deregistration on May 13, 2019.

# Notes to the Financial Statements

For the year ended December 31, 2019

## 4. Other related parties

Name of other related parties	Relationship with the Company
Shenzhen Nengzhihui Investment Co., Ltd.* (深圳市能之匯投資有限公司) ("Nengzhihui") and its subsidiaries	Under the control of the same party
Anhui Wuhu Nuclear Power Co., Ltd. (安徽蕪湖核電有限公司)	Under the control of the same party
Techenergy	Under the control of the same party
CGN New Energy Holdings Co., Ltd. and its subsidiaries	Under the control of the same party
CGN Energy International Holdings Co., Limited and its subsidiaries	Under the control of the same party
Hubei Nuclear Power Co., Ltd. (湖北核電有限公司)	Under the control of the same party
Shenzhen Nuclear Power Huantong Automobile Service Co., Ltd. (深圳核電環通汽車服務有限公司)	Under the control of the same party
Shenzhen Lvyuan Restaurant Management Co., Ltd. (深圳綠源餐飲管理有限公司)	Under the control of the same party
Shenzhen Bailu Health Service Co., Ltd. (深圳市白鷺健康服務有限公司)	Under the control of the same party
Shenzhen Nuclear Power Electrical Installation and Maintenance Co., Ltd. (深圳市核電機電安裝維修有限公司)	Under the control of the same party
Shenzhen Nuclear Power Property Co., Ltd. (深圳市核電物業有限公司)	Under the control of the same party
Shenzhen Zhenhe Construction Engineering Project Management Co., Ltd. (深圳市振核建設工程項目管理有限公司)	Under the control of the same party
Xianning Nuclear Power Co., Ltd. (咸寧核電有限公司)	Under the control of the same party
CGN Real Estate Management Co., Ltd. (中廣核不動產管理有限公司)	Under the control of the same party
CGN Cangnan Nuclear Power Co., Ltd. (中廣核蒼南核電有限公司)	Under the control of the same party
CGN Wind Energy Co., Ltd. and its subsidiaries	Under the control of the same party
CGN Services Group	Under the control of the same party
Shenzhen Kezhi Management Consulting Co., Ltd. (深圳市科智管理諮詢有限公司)	Under the control of the same party
CGNPC International Financial Leasing Co., Ltd. (中廣核國際融資租賃有限公司)	Under the control of the same party
China Nuclear Power EPC Limited and its subsidiaries	Under the control of the same party
CGN Nuclear Technology Application Co., Ltd. (中廣核核技術應用有限公司) and its subsidiaries	Under the control of the same party
CGNPC Huamei Investment Limited (中廣核華美投資有限公司) and its subsidiaries	Under the control of the same party
CGNPC Huasheng Investment Limited (中廣核華盛投資有限公司)	Under the control of the same party
CGN Environmental Protection Industry Co., Ltd. (中廣核環保產業有限公司)	Under the control of the same party
CGN Huizhou Nuclear Power Co., Ltd. (中廣核惠州核電有限公司)	Under the control of the same party
CGN Energy Conservation Industry Development Co., Ltd. and its subsidiaries	Under the control of the same party
CGN Energy Development Co., Ltd. and its subsidiaries	Under the control of the same party
CGN Taishan No. 2 Nuclear Power Co., Ltd. (中廣核台山第二核電有限公司)	Under the control of the same party
CGN Solar Energy (Shenzhen) Co., Ltd. (中廣核太陽能(深圳)有限公司)	Under the control of the same party
CGN Solar Energy Development Co., Ltd. and its subsidiaries	Under the control of the same party
CGN Uranium Resources Co., Ltd. and its subsidiaries	Under the control of the same party
CGN Capital Holdings Co., Ltd. (中廣核資本控股有限公司) and its subsidiaries	Under the control of the same party
Shenzhen Zhaoyinbailu Investment Partnership (Limited Partnership) (深圳招銀白鷺投資合夥企業(有限合夥))	Under the control of the same party
Shenzhen Nuclear Power Material Supply Co., Ltd. (深圳市核電物資供應有限公司)	Under the control of the same party

Name of other related parties	Relationship with the Company
Lingwan Nuclear Power Co., Ltd. (嶺灣核電有限公司)	Under the control of the same party
CGN Shaoguan Nuclear Power Co., Ltd. (中廣核韶關核電有限公司)	Under the control of the same party
Swakop Uranium (Pty) Ltd.	Under the control of the same party
CGN Hongda Environmental Technology Co., Ltd. (中廣核宏達環境科技有限責任公司)	Under the control of the same party
CGN Nuclear Technology Development Co., Ltd. (中廣核核技術發展股份有限公司)	Under the control of the same party
CGN Haihong Technology (Shenzhen) Co., Ltd. (中廣核海弘科技(深圳)有限公司)	Under the control of the same party
Shanghai Engineering Science & Technology Co., Ltd (上海中廣核工程科技有限公司) (Note 1)	Under the control of the same party
CGN Management Consulting (Shenzhen) Co., Ltd. (中廣核管理諮詢(深圳)有限公司)	Under the control of the same party
CGN Environmental Protection Industry (Shenzhen) Co., Ltd. (中廣核環保產業(深圳)有限公司)	Under the control of the same party
CGN Europe Energy and its subsidiaries	Under the control of the same party
CGN Begood Technology Co., Ltd.	Under the control of the same party
HKNIC	Non-controlling shareholders with significant influence on subsidiaries
Framatome Inc.	Non-controlling shareholders with significant influence on subsidiaries
TECNATOM, S.A.	Non-controlling shareholders with significant influence on subsidiaries
Guangdong Electric Power Design Institute of China Energy Engineering Group	Non-controlling shareholders with significant influence on subsidiaries
Beijing Hollysys Systems Engineering Co., Ltd.	Non-controlling shareholders with significant influence on subsidiaries
EDF International and its subsidiaries	Non-controlling shareholders with significant influence on subsidiaries
Guangdong Energy Group Co., Ltd. (廣東省能源集團有限公司) (Note 2)	Non-controlling shareholders with significant influence on subsidiaries
Guangxi GI Energy Co., Ltd. (廣西廣投能源有限公司)	Non-controlling shareholders with significant influence on subsidiaries
CLP Nuclear Power (Yangjiang) Limited	Non-controlling shareholders with significant influence on subsidiaries
Datang International Power Generation Co., Ltd. (大唐國際發電股份有限公司)	Non-controlling shareholders with significant influence on subsidiaries
Fujian Energy Group Co., Ltd. (福建省能源集團有限責任公司) and its subsidiaries	Non-controlling shareholders with significant influence on subsidiaries
Definite Arise Limited	Associates of the ultimate controlling party
Hualong Pressurized Water Reactor Technology Corporation, Ltd. (華龍國際核電技術有限公司)	Joint ventures of the ultimate controlling party
Note 1: On January 31, 2019, the Group disposed of its 100% equity interests in Shanghai Engineering Science & Technology Co., LTD (上海中廣核工程科技有限公司), and Shanghai Engineering Science & Technology Co., LTD (上海中廣核工程科技有限公司) has become a related party under the control of the same party since January 31, 2019.	
Note 2: On January 25, 2019, Guangdong Yudean Group Co., Ltd. (廣東省粵電集團有限公司) was officially renamed Guangdong Energy Group Co., Ltd. (廣東省能源集團有限公司).	

# Notes to the Financial Statements

For the year ended December 31, 2019

## 5. Related party transactions

### (1) Related party transactions for purchase and sale of goods, rendering and acceptance of services:

Purchase of goods/Acceptance of services:

		Unit: RMB	
Related party	Related party transaction	2019	2018
CGN Uranium Resources Co., Ltd. and its subsidiaries	Purchase of goods/Acceptance of services	1,125,078,079.49	4,351,398,741.25
Framatome Inc.	Purchase of goods/Acceptance of services	1,430,099,108.89	939,945,891.62
China Nuclear Industry 23 Construction Co., Ltd.	Purchase of goods/Acceptance of services	644,400,404.89	1,171,429,873.32
CGN Services Group	Purchase of goods/Acceptance of services	490,757,817.36	471,731,656.53
Techenergy	Purchase of goods/Acceptance of services	370,362,733.20	486,560,743.91
Shenzhen Nuclear Power Huantong Automobile Service Co., Ltd. (深圳核電環通汽車服務有限公司)	Purchase of goods/Acceptance of services	232,457,233.61	271,144,164.27
Shenzhen Lvyuan Restaurant Management Co., Ltd. (深圳綠源餐飲管理有限公司)	Purchase of goods/Acceptance of services	190,871,578.38	273,726,869.96
Datang International Power Generation Co., Ltd. (大唐國際發電股份有限公司)	Purchase of goods/Acceptance of services	120,626,918.34	103,318,941.49
Shenzhen Nuclear Power Property Co., Ltd. (深圳市核電物業有限公司)	Purchase of goods/Acceptance of services	104,489,837.96	131,268,145.17
Shenzhen Nuclear Power Material Supply Co., Ltd. (深圳市核電物資供應有限公司)	Purchase of goods/Acceptance of services	101,007,352.33	103,066,480.03
CGN Environmental Protection Industry (Shenzhen) Co., Ltd. (中廣核環保產業(深圳)有限公司)	Purchase of goods/Acceptance of services	102,400,832.40	86,724,149.37
Shenzhen Nuclear Power Electrical Installation and Maintenance Co., Ltd. (深圳市核電機電安裝維修有限公司)	Purchase of goods/Acceptance of services	91,949,618.09	83,375,750.72
Shenzhen Kezhi Management Consulting Co., Ltd. (深圳市科智管理諮詢有限公司)	Purchase of goods/Acceptance of services	90,832,020.22	50,759,383.85
EDF International and its subsidiaries	Purchase of goods/Acceptance of services	73,087,026.05	39,402,965.74
Shenzhen Bailu Health Service Co., Ltd. (深圳市白鷺健康服務有限公司)	Purchase of goods/Acceptance of services	65,974,149.30	75,633,243.97
CGN Hongda Environmental Technology Co., Ltd. (中廣核宏達環境科技有限責任公司)	Purchase of goods/Acceptance of services	24,883,416.26	7,585,299.40
Shenzhen Zhenhe Construction Engineering Project Management Co., Ltd. (深圳市振核建設工程項目管理有限公司)	Purchase of goods/Acceptance of services	22,335,848.89	28,609,466.36
CGNPC	Purchase of goods/Acceptance of services	19,046,958.57	83,871,599.70
Shanghai Engineering Science & Technology Co., Ltd. (上海中廣核工程科技有限公司)	Purchase of goods/Acceptance of services	15,295,066.52	N/A
CGN Nuclear Technology Application Co., Ltd. (中廣核核技術應用有限公司) and its subsidiaries	Purchase of goods/Acceptance of services	11,349,654.35	510,518.70
CGN Energy Development Co., Ltd. and its subsidiaries	Purchase of goods/Acceptance of services	5,623,025.37	-
Hongyanhe Nuclear	Purchase of goods/Acceptance of services	3,622,170.59	2,196,859.74
CGN Europe Energy and its subsidiaries	Purchase of goods/Acceptance of services	3,324,420.99	-
CIECC Engineering Company Limited	Purchase of goods/Acceptance of services	3,238,586.84	-
China Nuclear Power EPC Limited and its subsidiaries	Purchase of goods/Acceptance of services	2,700,711.03	-
CGN Capital Holdings Co., Ltd. (中廣核資本控股有限公司) and its subsidiaries	Purchase of goods/Acceptance of services	2,483,018.86	1,792,452.82
Guangdong Electric Power Design Institute of China Energy Engineering Group	Purchase of goods/Acceptance of services	-	35,017,866.96
CGN Begood Technology Co., Ltd.	Purchase of goods/Acceptance of services	-	16,749,992.06
CGNPC Huamei Investment Limited (中廣核華美投資有限公司) and its subsidiaries	Purchase of goods/Acceptance of services	-	5,326,100.87
TECNATOM, S.A.	Purchase of goods/Acceptance of services	-	4,553,121.55
Others	Purchase of goods/Acceptance of services	2,076,560.91	6,996,063.93
Total		5,350,374,149.69	8,832,696,343.29

## Sale of goods/Rendering of services:

Unit: RMB

Related party	Related party transaction	2019	2018
HKNIC	Sale of electricity	5,757,535,774.33	5,409,246,934.30
Hongyanhe Nuclear	Sale of goods/Rendering of services	619,963,642.24	531,512,574.42
China Nuclear Power EPC Limited and its subsidiaries	Sale of goods/Rendering of services	267,075,230.44	185,823,770.18
CGN Wind Energy Co., Ltd. and its subsidiaries	Sale of goods/Rendering of services	108,334,978.15	64,655,210.61
CGNPC	Sale of goods/Rendering of services	63,442,450.19	45,404,322.27
Nengzhihu and its subsidiaries	Sale of goods/Rendering of services	41,559,124.03	38,852,257.95
Techenergy	Sale of goods/Rendering of services	26,926,962.30	24,473,125.20
CGN Uranium Resources Co., Ltd. and its subsidiaries	Sale of goods/Rendering of services	23,432,609.55	14,745,088.83
CGN Solar Energy Development Co., Ltd. and its subsidiaries	Sale of goods/Rendering of services	12,900,277.77	10,872,290.59
CGN Nuclear Technology Application Co., Ltd. (中廣核技術應用有限公司) and its subsidiaries	Sale of goods/Rendering of services	12,078,446.10	3,474,027.81
CGN Services Group	Sale of goods/Rendering of services	10,372,478.59	9,014,740.14
CGN Cangnan Nuclear Power Co., Ltd. (中廣核蒼南核電有限公司)	Sale of goods/Rendering of services	10,032,513.71	5,395,015.23
CGN Huizhou Nuclear Power Co., Ltd. (中廣核惠州核電有限公司)	Sale of goods/Rendering of services	7,884,915.92	8,816,530.19
CGN Finance	Sale of goods/Rendering of services	6,907,519.25	4,271,465.97
CGN New Energy Holdings Co., Ltd. and its subsidiaries	Sale of goods/Rendering of services	6,241,220.78	-
CGN Energy Conservation Industry Development Co., Ltd. and its subsidiaries	Sale of goods/Rendering of services	5,287,213.48	8,437,552.39
Swakop Uranium(Pty) Ltd.	Sale of goods/Rendering of services	5,120,004.66	28,127,334.25
CGN Capital Holdings Co., Ltd. (中廣核資本控股有限公司) and its subsidiaries	Sale of goods/Rendering of services	4,303,306.38	11,709,126.60
CGN Energy International Holdings Co., Limited and its subsidiaries	Sale of goods/Rendering of services	3,947,934.30	-
CGNPC International Financial Leasing Co., Ltd. (中廣核國際融資租賃有限公司)	Sale of goods/Rendering of services	2,741,418.43	2,115,931.42
CGN Environmental Protection Industry Co., Ltd. (中廣核環保產業有限公司)	Sale of goods/Rendering of services	2,491,361.51	-
CGNPC Huasheng Investment Limited (中廣核華盛投資有限公司)	Sale of goods/Rendering of services	2,796,419.59	-
Lingwan Nuclear Power Co., Ltd. (嶺灣核電有限公司)	Sale of goods/Rendering of services	1,403,246.80	-
Shenzhen Nuclear Power Property Co., Ltd. (深圳市核電物業有限公司)	Sale of goods/Rendering of services	1,165,913.63	-
CGN Europe Energy and its subsidiaries	Sale of goods/Rendering of services	1,069,811.32	-
CGNPC Huamei Investment Limited (中廣核華美投資有限公司) and its subsidiaries	Sale of goods/Rendering of services	-	7,813,840.41
Others	Sale of goods/Rendering of services	2,700,054.80	7,888,977.03
<b>Total</b>		<b>7,007,714,828.25</b>	<b>6,422,650,115.79</b>

# Notes to the Financial Statements

For the year ended December 31, 2019

Provision of construction, installation and design services

Unit: RMB

Related party	Related party transaction	2019	2018
Hongyanhe Nuclear	Provision of construction, installation and design services	1,526,541,325.72	1,552,499,248.06
CGN Huizhou Nuclear Power Co., Ltd. (中廣核惠州核電有限公司)	Provision of construction, installation and design services	1,523,718,474.22	630,228,161.99
CGN Wind Energy Co., Ltd. and its subsidiaries	Provision of construction, installation and design services	1,683,256,956.56	79,341,818.87
Ningde Second Nuclear	Provision of construction, installation and design services	251,793,269.23	468,039,996.92
CGN Cangnan Nuclear Power Co., Ltd. (中廣核蒼南核電有限公司)	Provision of construction, installation and design services	229,801,936.63	112,422,739.91
Lingwan Nuclear Power Co., Ltd. (嶺灣核電有限公司)	Provision of construction, installation and design services	7,114,573.54	6,744,648.43
Xianning Nuclear Power Co., Ltd. (咸寧核電有限公司)	Provision of construction, installation and design services	108,429.93	32,397,916.31
CGNPC	Provision of construction, installation and design services	–	9,656,647.96
Hubei Nuclear Power Co., Ltd. (湖北核電有限公司)	Provision of construction, installation and design services	–	9,546,187.05
Lingwan Nuclear Power Co., Ltd. (嶺灣核電有限公司)	Provision of construction, installation and design services	–	6,744,648.43
CGN Shaoguan Nuclear Power Co., Ltd. (中廣核韶關核電有限公司)	Provision of construction, installation and design services	–	5,717,202.13
Swakop Uranium(Pty) Ltd	Provision of construction, installation and design services	–	3,131,429.40
CGN Energy Conservation Industry Development Co., Ltd. and its subsidiaries	Provision of construction, installation and design services	–	2,299,990.38
<b>Total</b>		<b>5,222,334,965.83</b>	<b>2,912,025,987.41</b>

## (2) Related party transactions for leasing

The Group as lessor:

Unit: RMB

Name of lessee	Type of leased assets	Rental income recognized in 2019	Rental income recognized in 2018
Hongyanhe Nuclear	Buildings	3,269,734.08	–
Shenzhen Bailu Health Service Co., Ltd. (深圳市白鷺健康服務有限公司)	Buildings	2,078,409.21	2,069,578.07
Shenzhen Nuclear Power Property Co., Ltd. (深圳市核電物業有限公司)	Buildings	1,935,154.01	1,149,640.81
Techenergy	Buildings	1,116,017.15	16,677,503.34
CGN Services Group	Buildings	623,589.26	623,589.26
CGN Uranium Resources Co., Ltd. and its subsidiaries	Buildings	471,904.76	–
CGN Nuclear Technology Application Co., Ltd. (中廣核核技術應用有限公司) and its subsidiaries	Buildings	246,906.06	–
CGN Wind Energy Co., Ltd. and its subsidiaries	Buildings	183,352.37	–
Shenzhen Lyuan Restaurant Management Co., Ltd. (深圳緣源餐飲管理有限公司)	Buildings	85,714.29	85,714.29
CGNPC	Buildings	52,259.21	212,757.14
CGN Haihong Technology (Shenzhen) Co., Ltd. (中廣核海弘科技(深圳)有限公司)	Buildings	–	13,636,363.65
CGN Solar Energy Development Co., Ltd. and its subsidiaries	Buildings	–	899,319.28
CGN Capital Holdings Co., Ltd. (中廣核資本控股有限公司) and its subsidiaries	Buildings	–	273,695.23
CGN Real Estate Management Co., Ltd. (中廣核不動產管理有限公司)	Buildings	–	117,585.33
<b>Total</b>		<b>10,063,040.40</b>	<b>35,745,746.40</b>

The Group as lessee:

Unit: RMB

Name of lessor	Type of leased assets	Rental (year)	Lease term	Other important terms of lease
CGNPC	Buildings	94,522,378.10	01/09/2018-31/08/2021	Nil
CGNPC	Buildings	1,407,723.48	01/01/2018-31/12/2021	Nil
CGN Real Estate Management Co., Ltd. (中廣核不動產管理有限公司)	Buildings	24,391,592.40	01/02/2019-30/01/2022	Nil
CGN Real Estate Management Co., Ltd. (中廣核不動產管理有限公司)	Buildings	11,451,942.86	15/04/2018-14/04/2023	Nil
CGN Real Estate Management Co., Ltd. (中廣核不動產管理有限公司)	Buildings	790,047.96	01/03/2019-28/02/2022	Nil
CGN Real Estate Management Co., Ltd. (中廣核不動產管理有限公司)	Buildings	2,922,163.20	15/03/2019-14/03/2022	Nil
Shanghai Engineering Science & Technology Co., LTD (上海中廣核工程科技有限公司)	Buildings	8,085,963.30	01/01/2019-31/12/2021	Nil
Shenzhen Nuclear Power Property Co., Ltd. (深圳市核電物業有限公司)	Buildings	4,828,465.68	15/09/2016-14/09/2023	Nil
Shenzhen Nuclear Power Property Co., Ltd. (深圳市核電物業有限公司)	Buildings	272,520.00	22/08/2018-21/08/2023	Nil
Shenzhen Bailu Health Service Co., Ltd. (深圳市白鷺健康服務有限公司)	Buildings	2,722,004.72	15/10/2018-14/10/2021	Nil
CGN Services Group	Buildings	2,100,391.30	01/05/2017-30/04/2020	Nil
CGN Services Group	Buildings	1,022,269.09	01/09/2018-31/08/2021	Nil
CGN New Energy Holdings Co., Ltd. and its subsidiaries	Buildings	190,476.18	31/08/2018-31/08/2021	Nil
CGN Wind Energy Co., Ltd. and its subsidiaries	Buildings	150,000.00	01/01/2019-31/12/2020	Nil
CGN Energy Conservation Industry Development Co., Ltd. and its subsidiaries	Buildings	148,900.00	31/08/2018-31/08/2021	Nil
Hongyanhe Nuclear	Buildings	38,406.34	01/07/2017-30/06/2020	Nil
<b>Total</b>		<b>155,045,244.61</b>		

### (3) Related party transactions for guarantees

The Group as warrantee:

Unit: RMB

Guarantor	Guaranteed amount	Start date	Expiry date	Whether the guarantee has been fulfilled
CGNPC	500,000,000.00	20/02/2013	20/02/2022	No
CGNPC	500,000,000.00	04/07/2013	04/07/2022	No
CGNPC	1,000,000,000.00	16/09/2013	16/09/2022	No
CGNPC	1,000,000,000.00	02/12/2013	02/12/2022	No
<b>Total</b>	<b>3,000,000,000.00</b>			

# Notes to the Financial Statements

For the year ended December 31, 2019

## (4) Related party transactions for funds lending

Unit: RMB

Related party	Amount in 2019	Amount in 2018
Borrowing from		
CGN Finance	27,221,658,445.80	17,796,500,000.00
CGNPC	800,000,000.00	800,000,000.00
Hualong Pressurized Water Reactor Technology Corporation, Ltd. (華龍國際核電技術有限公司)	100,000,000.00	100,000,000.00
CGNPC Huasheng Investment Limited (中廣核華盛投資有限公司)	18,573,925.53	166,277,495.41
Shenzhen Zhaoyinbailu Investment Partnership (Limited Partnership) (深圳招銀白鷺投資合夥企業(有限合夥))	–	2,000,000,000.00
CGNPC International Financial Leasing Co., Ltd. (中廣核國際融資租賃有限公司)	–	250,000,000.00
EDF International and its subsidiaries	–	197,000,000.00
<b>Total</b>	<b>28,140,232,371.33</b>	<b>21,309,777,495.41</b>

## (5) Related party transactions for asset transfer and debt restructuring

Unit: RMB

Related party	Transaction	2019	2018
CGNPC	Disposal of subsidiaries	719,568,857.28 (Note)	–
CGNPC	Acquisition of subsidiaries	–	20,233,374.16
Nengzhihui and its subsidiaries	Acquisition of subsidiaries	–	214,783,136.88
<b>Total</b>		<b>719,568,857.28</b>	<b>235,016,511.04</b>

Note: CGN Engineering, a subsidiary of the Company, transferred its 100% equity interests in Shanghai Engineering Science & Technology Co., LTD (上海中廣核工程科技有限公司) to CGNPC at a consideration of RMB719,568,857.28 in January 2019.

## (6) Emoluments for key management

Unit: RMB

Item	2019	2018
Emoluments for key management	19,637,097.30	10,100,444.78

The remuneration of each director in 2019 was as follows:

Unit: RMB

	Directors' salaries	Wages and allowances	Bonus	Retirement benefits	Total
<b>Executive director and chief executive</b>					
Gao Ligang	–	240,893.12	1,083,625.09	122,931.88	1,447,450.09
<b>Non-executive directors</b>					
Zhang Shanming	–	–	–	–	–
Tan Jiansheng	–	–	–	–	–
Shi Bing	–	–	–	–	–
Zhong Huiling (Note 1)	–	–	–	–	–
Zhang Yong	–	–	–	–	–
<b>Independent non-executive directors</b>					
Na Xizhi	500,000.00	–	–	–	500,000.00
Hu Yiguang	450,000.00	–	–	–	450,000.00
Francis Siu Wai Keung	650,000.00	–	–	–	650,000.00
<b>Total</b>	<b>1,600,000.00</b>	<b>240,893.12</b>	<b>1,083,625.09</b>	<b>122,931.88</b>	<b>3,047,450.09</b>

Note 1: On December 12, 2019, Ms. Zhong Huiling resigned from her position as non-executive Director of the second session of the Board of the Company.

The remuneration of each director in 2018 was as follows:

Unit: RMB

	Directors' salaries	Wages and allowances	Bonus	Retirement benefits	Total
<b>Executive director and chief executive</b>					
Gao Ligang	–	227,263.70	661,400.56	91,559.16	980,223.42
<b>Non-executive directors</b>					
Zhang Shanming	–	–	–	–	–
Tan Jiansheng	–	–	–	–	–
Shi Bing	–	–	–	–	–
Zhong Huiling	–	–	–	–	–
Zhang Yong	–	–	–	–	–
<b>Independent non-executive directors</b>					
Na Xizhi	500,000.00	–	–	–	500,000.00
Hu Yiguang	450,000.00	–	–	–	450,000.00
Francis Siu Wai Keung	650,000.00	–	–	–	650,000.00
<b>Total</b>	<b>1,600,000.00</b>	<b>227,263.70</b>	<b>661,400.56</b>	<b>91,559.16</b>	<b>2,580,223.42</b>

In 2019 and 2018, Zhang Shanming, Shi Bing, and Tan Jiansheng received remuneration from CGNPC as directors or employees. Zhong Huiling was an investment agent of Guangdong Hengjian Investment Holding Co., Ltd. (廣東恒健投資控股有限公司), and Zhang Yong was an investment agent of CNNC. Their remuneration were borne by Guangdong Hengjian Investment Holding Co., Ltd. (廣東恒健投資控股有限公司) and CNNC, respectively. Remuneration of the above Directors are paid for their services in connection with the management of the affairs of the Company or the Group. The above wages and allowances mainly include basic salaries and travel expenses. Bonuses are determined based on the performance of the Group and individuals..

The remuneration of each supervisor in 2019 was as follows:

Unit: RMB

	Supervisors' salaries	Wages and allowances	Bonus	Retirement benefits	Total
<b>Supervisors</b>					
Zhu Hui (Note 2)	–	459,118.18	1,231,360.00	109,388.32	1,799,866.50
Cai Zihua (Note 2)	–	100,306.26	60,952.00	14,404.42	175,662.68
Wang Hongxin	–	555,014.51	1,042,917.00	123,288.76	1,721,220.27
<b>Independent supervisors</b>					
Chen Sui	–	–	–	–	–
Yang Lanhe	150,000.00	–	–	–	150,000.00
Chen Rongzhen	150,000.00	–	–	–	150,000.00
<b>Total</b>	<b>300,000.00</b>	<b>1,114,438.95</b>	<b>2,335,229.00</b>	<b>247,081.50</b>	<b>3,996,749.45</b>

Note 2: Since March 12, 2019, Zhu Hui has served as an employee representative supervisor of the Group, and Cai Zihua no longer served as an employee representative supervisor.

The remuneration of each supervisor in 2018 was as follows:

Unit: RMB

	Supervisors' salaries	Wages and allowances	Bonus	Retirement benefits	Total
<b>Supervisors</b>					
Cai Zihua	–	587,914.41	424,465.50	81,379.46	1,093,759.37
Wang Hongxin	–	600,263.09	495,033.00	78,197.06	1,173,493.15
<b>Independent supervisors</b>					
Chen Sui	–	–	–	–	–
Yang Lanhe	150,000.00	–	–	–	150,000.00
Chen Rongzhen	150,000.00	–	–	–	150,000.00
<b>Total</b>	<b>300,000.00</b>	<b>1,188,177.50</b>	<b>919,498.50</b>	<b>159,576.52</b>	<b>2,567,252.52</b>

Remuneration of the above Supervisors is used to pay for the services they provided as supervisors of the Group. Chen Sui received remuneration from CGNPC as a Supervisor during 2019 and 2018. The above wages and allowances mainly include basic salaries and travel expenses. Bonuses are determined based on the performance of the Group and individuals.

# Notes to the Financial Statements

For the year ended December 31, 2019

For the years 2019 and 2018, the five highest paid individuals were neither the Directors of the Group nor the Supervisors of the Group.

The remuneration of five highest paid individuals are as follows:

	Unit: RMB	
	2019	2018
Wages and allowances	3,274,737.43	2,978,279.09
Bonus	13,898,113.00	3,883,029.13
Retirement benefits	721,190.21	380,332.55
<b>Total</b>	<b>17,894,040.64</b>	<b>7,241,640.77</b>

The above wages and allowances mainly include basic salaries and travel expenses. Bonuses are determined based on the performance of the Group and individuals.

The remuneration of five highest paid individuals by band:

	Number of persons in 2019	Number of persons in 2018
HK\$1,000,001 to HK\$1,500,000 (Equivalent to RMB895,800.00 to RMB1,343,700.00)	–	3
HK\$1,500,001 to HK\$2,000,000 (Equivalent to RMB1,343,700.00 to RMB1,791,600.00)	–	2
HK\$3,000,001 to HK\$3,500,000 (Equivalent to RMB2,687,300.00 to RMB3,135,200.00)	2	–
HK\$3,500,001 to HK\$4,000,000 (Equivalent to RMB3,135,200.00 to RMB3,583,100.00)	3	–
<b>Total</b>	<b>5</b>	<b>5</b>

In 2019 and 2018, the Group did not pay any directors, supervisors or the five highest paid individuals as incentives or resignation compensation for joining the Group or when joining the Group. No director or supervisor has waived any remuneration.

## (7) Other related party transactions

	Unit: RMB	
Item	2019	2018
Interest income from CGN Finance	239,978,709.68	215,665,466.18
Interest income from CGNPC Huasheng Investment Limited (中廣核華盛投資有限公司)	78.95	215.14
<b>Total</b>	<b>239,978,788.63</b>	<b>215,665,681.32</b>
Interest expenses on CGN Finance	447,611,131.12	354,823,483.11
Interest expenses on Shenzhen Zhaoyinbailu Investment Partnership (Limited Partnership) (深圳招銀白鷺投資合夥企業(有限合夥))	172,197,494.79	171,616,939.22
Interest expenses on CGNPC	29,990,833.33	29,990,833.33
Interest expenses on EDF International and its subsidiaries	85,446,425.85	36,008,330.91
Interest expenses on CGNPC Huasheng Investment Limited (中廣核華盛投資有限公司)	1,450,349.12	24,997,272.73
Interest expenses on CGNPC International Financial Leasing Co., Ltd. (中廣核國際融資租賃有限公司)	35,467,141.66	21,458,897.11
Interest expenses on Hualong Pressurized Water Reactor Technology Corporation, Ltd. (華龍國際核電技術有限公司)	2,780,375.00	4,108,333.34
Interest expenses on Shanghai Engineering Science & Technology Co., LTD (上海中廣核工程科技有限公司)	297,961.86	N/A
<b>Total</b>	<b>775,241,712.73</b>	<b>643,004,089.75</b>
Fee expenses on CGN Finance	1,208,141.46	1,968,969.29
Fee expenses on CGNPC Huasheng Investment Limited (中廣核華盛投資有限公司)	16,560.26	(35,015.93)
<b>Total</b>	<b>1,224,701.72</b>	<b>1,933,953.36</b>

## 6. Amounts due from/due to related parties

### (1) Receivables

Unit: RMB

Item name	Related party	December 31, 2019	December 31, 2018	
Cash at bank and in hand	CGN Finance	18,187,417,026.77	14,055,082,399.20	
	CGNPC Huasheng Investment Limited (中廣核華盛投資有限公司)	46,688,868.15	19,307,219.05	
	Total	18,234,105,894.92	14,074,389,618.25	
Accounts receivable	CGN Wind Energy Co., Ltd. and its subsidiaries	656,392,687.53	60,168,508.87	
	HKNIC	412,532,043.36	453,284,714.66	
	Hongyanhe Nuclear	238,258,061.13	203,739,590.93	
	China Nuclear Power EPC Limited and its subsidiaries	120,816,221.59	139,737,749.06	
	Techenergy	21,597,908.60	31,191,890.73	
	Swakop Uranium(Pty) Ltd.	17,896,885.68	46,180,741.61	
	Nengzhihui and its subsidiaries	16,803,855.18	37,649,577.62	
	CGN Uranium Resources Co., Ltd. and its subsidiaries	13,590,010.01	14,549,552.46	
	CGN Services Group	10,867,242.44	9,241,875.70	
	CGN Energy Conservation Industry Development Co., Ltd. and its subsidiaries	10,629,597.96	-	
	CGN Solar Energy Development Co., Ltd. and its subsidiaries	9,965,058.78	13,733,771.79	
	CGN Nuclear Technology Application Co., Ltd. (中廣核核技術應用有限公司) and its subsidiaries	9,519,766.72	2,860,669.48	
	CGNPC	9,167,208.00	14,600,952.60	
	CGN Huizhou Nuclear Power Co., Ltd. (中廣核惠州核電有限公司)	8,427,679.23	49,587,723.02	
	CGN Finance	7,288,622.59	4,511,369.04	
	CGN Cangnan Nuclear Power Co., Ltd. (中廣核蒼南核電有限公司)	5,381,670.56	4,144,724.49	
	CGN Capital Holdings Co., Ltd. (中廣核資本控股有限公司) and its subsidiaries	4,493,412.71	10,572,749.71	
	CGN New Energy Holdings Co., Ltd. and its subsidiaries	3,712,698.87	-	
	CGN Energy International Holdings Co., Limited and its subsidiaries	3,406,847.01	-	
	CGNPC Huasheng Investment Limited (中廣核華盛投資有限公司)	2,964,204.76	1,345,293.06	
	CGNPC International Financial Leasing Co., Ltd. (中廣核國際融資租賃有限公司)	2,882,742.99	2,226,502.40	
	Shenzhen Bailu Health Service Co., Ltd. (深圳市白鷺健康服務有限公司)	2,265,466.07	4,346,113.98	
	Shenzhen Nuclear Power Property Co., Ltd. (深圳市核電物業有限公司)	2,019,194.68	1,207,122.85	
	Hualong Pressurized Water Reactor Technology Corporation, Ltd. (華龍國際核電技術有限公司)	885,967.95	885,967.95	
	CGNPC Huamei Investment Limited (中廣核華美投資有限公司) and its subsidiaries	-	8,178,861.18	
	Ningde Second Nuclear	-	240,963,816.30	
	CGN Real Estate Management Co., Ltd. (中廣核不動產管理有限公司)	-	12,823,179.86	
	Framatome Inc.	-	22,547,797.42	
	CGN Haihong Technology (Shenzhen) Co., Ltd. (中廣核海弘科技(深圳)有限公司)	-	15,000,000.00	
	Others	6,060,133.88	4,787,109.20	
		Total	1,597,825,188.28	1,410,067,925.97

# Notes to the Financial Statements

For the year ended December 31, 2019

Item name	Related party	December 31, 2019	December 31, 2018
Prepayments	CGN Uranium Resources Co., Ltd. and its subsidiaries	3,915,503,871.31	179,911,167.41
	China Nuclear Industry 23 Construction Co., Ltd.	490,960,186.95	489,700,390.67
	Techenergy	26,470,133.16	27,968,494.26
	Shenzhen Nuclear Power Huantong Automobile Service Co., Ltd. (深圳核電環通汽車服務有限公司)	9,900,000.00	10,361,039.03
	Shanghai Engineering Science & Technology Co., LTD (上海中廣核工程科技有限公司)	9,068,471.57	N/A
	Hualong Pressurized Water Reactor Technology Corporation, Ltd. (華龍國際核電技術有限公司)	7,547,169.78	–
	CGN Services Group	6,018,610.85	9,216,414.05
	Framatome Inc.	5,369,280.23	4,337,465.98
	CGNPC	3,508,958.31	1,962,716.54
	Shenzhen Lyuan Restaurant Management Co., Ltd. (深圳綠源餐飲管理有限公司)	3,320,000.00	4,520,000.00
	CIECC Engineering Company Limited (中諮工程有限公司)	2,461,172.26	–
	Shenzhen Nuclear Power Electrical Installation and Maintenance Co., Ltd. (深圳市核電機電安裝維修有限公司)	2,420,000.00	3,481,906.24
	Shenzhen Nuclear Power Material Supply Co., Ltd. (深圳市核電物資供應有限公司)	1,211,207.60	1,251,114.39
	TECNATOM, S.A.	39,757.33	3,931,551.59
	CGN Finance	–	1,741,466.29
	Shenzhen Nuclear Power Property Co., Ltd. (深圳市核電物業有限公司)	–	300,000.00
	Guangdong Electric Power Design Institute of China Energy Engineering Group	–	4,981,765.10
Others	822,215.09	427,754.00	
	<b>Total</b>	<b>4,484,621,034.44</b>	<b>744,093,245.55</b>
Contract assets	Hongyanhe Nuclear	992,529.35	442,969.70
	CGN Uranium Resources Co., Ltd. and its subsidiaries	47,094.02	–
	<b>Total</b>	<b>1,039,623.37</b>	<b>442,969.70</b>
Other receivables	CGN Services Group	22,335,310.94	23,235,907.50
	China Nuclear Industry 23 Construction Co., Ltd.	12,855,627.11	–
	CGNPC	9,577,157.28	–
	Hongyanhe Nuclear	8,436,459.25	103,650.55
	Shenzhen Nuclear Power Material Supply Co., Ltd. (深圳市核電物資供應有限公司)	500,000.00	2,000,000.00
	Techenergy	–	130,200,000.00
	EDF International and its subsidiaries	–	929,072.85
	CLP Nuclear Power (Yangjiang) Limited	–	300,843,139.00
	Beijing Ric Nuclear Instrument Joint Venture Co., Ltd. (北京中法瑞克核儀器有限公司)	–	16,228,478.58
	Others	43,304.98	446.02
	<b>Total</b>	<b>53,747,859.56</b>	<b>473,540,694.50</b>
Other non-current assets	CGN Hongda Environmental Technology Co., Ltd. (中廣核宏達環境科技有限責任公司)	4,857,360.63	4,857,360.63
	Techenergy	1,780,000.00	–
	Shenzhen Nuclear Power Material Supply Co., Ltd. (深圳市核電物資供應有限公司)	1,000,000.00	1,000,000.00
	Shenzhen Nuclear Power Huantong Automobile Service Co., Ltd. (深圳核電環通汽車服務有限公司)	–	14,000,000.00
	Nengzhahui and its subsidiaries	–	304,829.00
	Framatome Inc.	–	13,414,820.98
	Others	1,163,137.24	–
	<b>Total</b>	<b>8,800,497.87</b>	<b>33,577,010.61</b>

## (2) Payables

Unit: RMB

Item name	Related party	December 31, 2019	December 31, 2018
Accounts payable	China Nuclear Industry 23 Construction Co., Ltd.	535,124,816.04	144,690,992.39
	Framatome Inc.	240,303,858.76	7,275,487.89
	Techenergy	100,273,555.94	122,098,597.94
	CGN Services Group	80,413,838.35	173,949,461.39
	Shenzhen Lyvuan Restaurant Management Co., Ltd. (深圳綠源餐飲管理有限公司)	68,819,894.89	100,320,075.07
	CGN Environmental Protection Industry Co., Ltd. (中廣核環保產業有限公司)	53,501,030.74	48,643,946.03
	Shenzhen Nuclear Power Huantong Automobile Service Co., Ltd. (深圳核電環通汽車服務有限公司)	51,657,329.52	94,192,821.39
	EDF International and its subsidiaries	48,820,256.60	24,475,625.74
	Shenzhen Nuclear Power Electrical Installation and Maintenance Co., Ltd. (深圳市核電機電安裝維修有限公司)	44,606,006.56	42,142,334.20
	Shenzhen Nuclear Power Material Supply Co., Ltd. (深圳市核電物資供應有限公司)	32,489,594.98	49,505,617.12
	Datang International Power Generation Co., Ltd. (大唐國際發電股份有限公司)	22,162,023.20	54,113,434.50
	Shenzhen Nuclear Power Property Co., Ltd. (深圳市核電物業有限公司)	22,088,822.76	84,545,660.38
	CGN Uranium Resources Co., Ltd. and its subsidiaries	21,703,419.83	315,589,898.61
	Shenzhen Bailu Health Service Co., Ltd. (深圳市白鷺健康服務有限公司)	20,984,037.40	27,901,756.60
	CGNPC	18,360,745.93	39,568,091.85
	Shenzhen Zhenhe Construction Engineering Project Management Co., Ltd. (深圳市振核建設工程項目管理有限公司)	18,175,133.78	9,792,519.16
	Shanghai Engineering Science & Technology Co., LTD (上海中廣核工程科技有限公司)	16,980,196.72	N/A
	Shenzhen Kezhi Management Consulting Co., Ltd. (深圳市科智管理諮詢有限公司)	10,157,063.24	34,176,663.92
	CGN Nuclear Technology Application Co., Ltd. (中廣核技術應用有限公司) and its subsidiaries	8,183,319.56	-
	Beijing Ric Nuclear Instrument Joint Venture Co., Ltd. (北京中法瑞克核儀器有限公司)	4,143,508.98	5,600,641.13
	CGN Wind Energy Co., Ltd. and its subsidiaries	3,693,535.29	-
	CIECC Engineering Company Limited (中諮工程有限公司)	2,746,784.92	-
	China Nuclear Power EPC Limited and its subsidiaries	2,708,032.30	-
	CGN Real Estate Management Co., Ltd. (中廣核不動產管理有限公司)	1,426,026.68	380,931.09
	CGN New Energy Holdings Co., Ltd. and its subsidiaries	1,078,670.26	-
	CGN Finance	1,069,568.46	-
	Guangdong Electric Power Design Institute of China Energy Engineering Group	1,047,169.81	7,656,739.78
	Nengzhahui and its subsidiaries	-	7,720,531.99
	Others	4,221,401.92	3,886,947.81
	<b>Total</b>	<b>1,436,939,643.42</b>	<b>1,398,228,775.98</b>
Contract liabilities	CGNPC	7,179,386.80	40,502,169.97
	CGN Wind Energy Co., Ltd. and its subsidiaries	6,882,678.00	3,412,411.20
	Hongyanhe Nuclear	5,771,898.31	66,020,455.22
	CGN Uranium Resources Co., Ltd. and its subsidiaries	630,306.00	1,880,703.90
	CGN Taishan No. 2 Nuclear Power Co., Ltd. (中廣核台山第二核電有限公司)	-	22,710,562.50
	Others	1,559,980.00	2,377,282.00
	<b>Total</b>	<b>22,024,249.11</b>	<b>136,903,584.79</b>

# Notes to the Financial Statements

For the year ended December 31, 2019

Item name	Related party	December 31, 2019	December 31, 2018
Short-term loans	CGN Finance	5,765,413,158.05	8,915,237,922.86
	CGNPC	800,986,000.00	800,246,500.00
	Hualong Pressurized Water Reactor Technology Corporation, Ltd. (華龍國際核電技術有限公司)	100,130,500.00	100,145,000.00
	Shanghai Engineering Science & Technology Co., LTD (上海中廣核工程科技有限公司)	49,228,658.26	N/A
	CGNPC Huasheng Investment Limited (中廣核華盛投資有限公司)	17,297,913.22	38,896,116.90
	EDF International and its subsidiaries	–	1,297,513,348.59
	CGNPC International Financial Leasing Co., Ltd. (中廣核國際融資租賃有限公司)	–	200,355,250.00
	<b>Total</b>	<b>6,733,056,229.53</b>	<b>11,352,394,138.35</b>
Long-term loans	CGN Finance	2,941,243,949.13	3,038,471,480.90
	CGN Capital Holdings Co., Ltd. (中廣核資本控股有限公司) and its subsidiaries	2,005,189,513.54	–
	CGNPC Huasheng Investment Limited (中廣核華盛投資有限公司)	117,232,500.00	117,709,500.00
	CGNPC International Financial Leasing Co., Ltd. (中廣核國際融資租賃有限公司)	870,833.33	500,000,000.00
	Shenzhen Zhaoyinbailu Investment Partnership (Limited Partnership) (深圳招銀白鷺投資合夥企業(有限合夥))	–	3,250,500,000.00
	<b>Total</b>	<b>5,064,536,796.00</b>	<b>6,906,680,980.90</b>
Other payables	Guangxi GI Energy Co., Ltd. (廣西廣投能源有限公司)	1,591,861,440.00	577,200,000.00
	CGNPC	85,405,562.62	74,006,396.74
	Guangdong Electric Power Design Institute of China Energy Engineering Group	4,775,112.45	2,179,386.40
	CGN Uranium Resources Co., Ltd. and its subsidiaries	2,631,389.60	1,251,636.36
	CGN Wind Energy Co., Ltd. and its subsidiaries	2,504,679.29	–
	CGN Services Group	2,062,503.19	2,974,202.22
	Shanghai Engineering Science & Technology Co., LTD (上海中廣核工程科技有限公司)	1,578,938.47	N/A
	China Nuclear Industry 23 Construction Co., Ltd.	1,443,466.22	1,844,399.08
	CGN Solar Energy Development Co., Ltd. and its subsidiaries	1,437,002.71	–
	Shenzhen Nuclear Power Electrical Installation and Maintenance Co., Ltd. (深圳市核電機電安裝維修有限公司)	1,150,879.62	1,463,899.52
	Shenzhen Bailu Health Service Co., Ltd. (深圳市白鷺健康服務有限公司)	811,350.74	1,036,734.92
	Shenzhen Nuclear Power Huantong Automobile Service Co., Ltd. (深圳核電環通汽車服務有限公司)	546,848.32	573,431.66
	CGN Cangnan Nuclear Power Co., Ltd. (中廣核蒼南核電有限公司)	499,435.57	476,717.86
	Techenergy	361,898.67	233,158.30
	Hongyanhe Nuclear	227,947.65	303,161.85
	Shenzhen Nuclear Power Property Co., Ltd. (深圳市核電物業有限公司)	151,626.91	71,296.36
	CGN Environmental Protection Industry Co., Ltd. (中廣核環保產業有限公司)	151,333.10	231,677.36
	Shenzhen Nuclear Power Material Supply Co., Ltd. (深圳市核電物資供應有限公司)	69,976.40	69,976.40
	Datang International Power Generation Co., Ltd. (大唐國際發電股份有限公司)	60,000.00	60,000.00
	HKNIC	6,787.70	832,163,000.00
	CGN Finance	2,700.00	1,084,931.51
	CGN Fund Phase I	–	136,740,753.94
	Nengzhahui and its subsidiaries	–	473,863.46
	CGN Huizhou Nuclear Power Co., Ltd. (中廣核惠州核電有限公司)	–	133,084.76
	Hualong Pressurized Water Reactor Technology Corporation, Ltd. (華龍國際核電技術有限公司)	–	445,026.71
	Others	1,263,091.63	1,536,307.00
	<b>Total</b>	<b>1,699,003,970.86</b>	<b>1,636,553,042.41</b>

Item name	Related party	December 31, 2019	December 31, 2018
Lease liabilities	CGNPC	62,375,305.59	/
	CGN Real Estate Management Co., Ltd. (中廣核不動產管理有限公司)	23,927,701.65	/
	Shanghai Engineering Science & Technology Co., LTD (上海中廣核工程科技有限公司)	7,850,588.67	/
	Shenzhen Bailu Health Service Co., Ltd. (深圳市白鷺健康服務有限公司)	2,347,415.07	/
	Shenzhen Nuclear Power Property Co., Ltd. (深圳市核電物業有限公司)	614,426.94	/
	CGN Services Group	541,491.41	/
	CGN New Energy Holdings Co., Ltd. and its subsidiaries	521,987.13	/
	CGN Energy Conservation Industry Development Co., Ltd. and its subsidiaries	105,099.00	/
	<b>Total</b>	<b>98,284,015.46</b>	<b>/</b>
Non-current liabilities due within one year	Shenzhen Zhaoyinbailu Investment Partnership (Limited Partnership) (深圳招銀白鷺投資合夥企業(有限合夥))	1,250,500,000.00	-
	CGNPC International Financial Leasing Co., Ltd. (中廣核國際融資租賃有限公司)	500,000,000.00	798,263.89
	CGN Finance	260,610,181.57	273,039,620.65
	CGNPC	94,786,067.10	-
	CGN Real Estate Management Co., Ltd. (中廣核不動產管理有限公司)	11,451,942.86	-
	Shanghai Engineering Science & Technology Co., LTD (上海中廣核工程科技有限公司)	7,487,105.57	N/A
	CGN Services Group	5,674,665.65	-
	Shenzhen Bailu Health Service Co., Ltd. (深圳市白鷺健康服務有限公司)	2,722,004.72	5,189,513.54
	Shenzhen Nuclear Power Property Co., Ltd. (深圳市核電物業有限公司)	295,038.92	-
	CGN Wind Energy Co., Ltd. and its subsidiaries	293,491.39	-
	CGN New Energy Holdings Co., Ltd. and its subsidiaries	157,489.05	-
	CGN Energy Conservation Industry Development Co., Ltd. and its subsidiaries	130,420.61	-
	CGNPC Huasheng Investment Limited (中廣核華盛投資有限公司)	49,932.36	648,492.16
	Hongyanhe Nuclear	38,406.34	-
	<b>Total</b>	<b>2,134,196,746.14</b>	<b>279,675,890.24</b>

# Notes to the Financial Statements

For the year ended December 31, 2019

## (XI) Share-based Payment

### 1. Overall share-based payment

Unit: Units

Item	2019		2018	
	First batch	Second batch	First batch	Second batch
Total equity instruments of the Company at the beginning of the year	207,599,986	543,640,000	213,119,999	543,640,000
Total equity instruments granted by the Company during the year	–	–	–	–
Total equity instruments exercised by the Company during the year	–	–	–	–
Total equity instruments of the Company that have expired during the year	77,653,335	81,279,997	5,520,013	–
Total equity instruments of the Company at the end of the year	129,946,651	462,360,003	207,599,986	543,640,000
The range of exercise price of outstanding share appreciation rights of the Company at the end of the year and the remaining period of the contract	HKD2.09	HKD3.50	HKD2.09	HKD3.50
	0.96-1.96 years	2.95-4.95 years	0.96-2.96 years	3.95-5.95 years

The Group has set up an H-share Appreciation Rights (“SAR”) Scheme (the “Scheme”) for core staff who exert significant impact on the Company’s strategic target, including certain Directors (excluding independent non-executive Directors and external Directors), senior management and core technical and management staff of the Company who have exerted direct influence on the overall results and sustainable development of the Company (“Incentive Recipients”). The Scheme was approved at the annual general meeting of the Company on June 12, 2015. Supervisors of the Company are not Incentive Recipients.

The initial implementation plan of the SAR was approved by the Board on November 5, 2015. Pursuant to the initial scheme, 256,240,000 units of SAR were granted to Incentive Recipients of the Group (including Hongyanhe Nuclear) at the exercise price of HKD3.50 per share. One third of the total number of SAR are vested and entitled on or after December 19, 2016 (which was expired and lapsed on December 16, 2019), one third of the total number of SAR are vested and entitled on or after December 18, 2017 and the remaining one third of the total number of SAR are vested and entitled on or after December 18, 2018.

The secondary implementation plan of the SAR was approved by the Board on December 14, 2017. Pursuant to the secondary scheme, 568,970,000 units of SAR were granted to Incentive Recipients of the Group (including Hongyanhe Nuclear) at the exercise price of HKD2.09 per share. One third of the total number of SAR are vested and entitled on or after December 16, 2019, one third of the total number of SAR are vested and entitled on or after December 15, 2020 and the remaining one third of the total number of SAR are vested and entitled on or after December 15, 2021.

Each unit of SAR is notionally linked to one H Share and represents the rights conferred on the relevant Incentive Recipients to receive in cash stipulated earnings from the increase in market value of the relevant H share. The SARs will have to be exercised within the specified services periods and the exercise period is three years after the respective vesting dates. In addition, the exercise of SAR is also subject to the performance condition of the Group and Incentive Recipients including achievements of certain performance targets.

## 2. Cash-Settled Share-based Payment

Unit: RMB

Item	2019	2018
Methods for determining fair value of liabilities undertaken by the Company and calculated by share or other equity instruments	Black-Scholes options valuation model	Black-Scholes options valuation model
Accumulated liabilities arising from cash-settled share-based payment in liabilities	78,312,817.00	61,728,273.40
Total fees recognized in respect of cash-settled share-based payment during the year	16,584,543.60	36,778,539.27
Unsettled fair value in respect of cash-settled share-based payment at the end of the year	116,848,373.45	159,532,209.48

The fair value of share-based payment is measured by using the Black-Scholes Model, and inputs used in the model are as follows:

Item	December 31, 2019	December 31, 2018
Share price (HKD)	2.08	1.86
Expected volatility	18.94 – 31.94%	28.92 – 34.83%
Expected dividend yield	4.051%	4.484%

The first grant under the Scheme:

Item	December 31, 2019	December 31, 2018
Exercise price (HKD)	3.50	3.50
Expected term	0.96 – 1.96 years	0.96 – 2.96 years
Risk-free rate	1.734 - 1.831%	1.731 - 1.758%
Fair value (HKD)	0.0003-0.0049	0.004-0.043

The second batch of the Scheme:

Item	December 31, 2019	December 31, 2018
Exercise price (HKD)	2.09	2.09
Expected term	2.95 – 4.95 years	3.95-5.95 years
Risk-free rate	1.657 - 1.716%	1.791 - 1.859%
Fair value (HKD)	0.18-0.40	0.30-0.34

The variables and assumptions used in computing the fair value of the share options are based on the Directors' best estimate. Changes in variables of specific assumptions may result in changes in the value of the options. The expected volatility is determined with reference to the historical volatility of the stock prices of the Group and other listed power generation companies. The expected term used in the model has been adjusted based on the management's best estimates on the restrictions imposed in respect of the non-transferability and behavioral considerations.

# Notes to the Financial Statements

For the year ended December 31, 2019

## (XII) Commitments and Contingencies

### 1. Important commitments

#### 1.1 Capital commitments

Unit: RMB

Item	December 31, 2019	December 31, 2018
Commitment of acquisition and construction of long-term assets	7,296,751,378.92	11,208,650,536.79
Large-amount contracts	4,938,647,799.73	5,063,654,327.32
Total	12,235,399,178.65	16,272,304,864.11

#### 1.2 Operating lease commitments

As at the balance sheet date, the Group has entered into non-cancelable operating leases as follows:

Unit: RMB

Item	December 31, 2019	December 31, 2018
Minimum lease payments under non-cancelable operating leases which fall due as follows:		
First year upon the balance sheet date	/	290,974,795.63
Second year upon the balance sheet date	/	269,572,948.81
Third year upon the balance sheet date	/	214,265,666.50
Every year thereafter	/	682,428,470.31
Total	/	1,457,241,881.25

### 2. Contingencies

There are no important contingencies that should be disclosed by the Group.

## (XIII) Events after the Balance Sheet Date

According to the SAR Scheme of the Group, if there are any matters such as distribution of dividends or stock bonuses before exercise, the exercise price should be adjusted accordingly. The Company held the 14th meeting of the second session of the Board of Directors on January 8, 2020, and reviewed and approved the Proposal on Approving the First Batch of the Second Issue of the Shares Appreciation Rights (H shares) Scheme of CGN Power Co., Ltd. It was also decided to change the exercise price of the second issue of the Share Appreciation Rights (H shares) Scheme from HK\$2.09 per share to HK\$1.9223 per share.

Since the nationwide outbreak of the novel coronavirus pneumonia (the "COVID-19") in January 2020, the Group has strictly implemented the epidemic prevention requirements of the central and local governments to ensure the safe and stable operation of nuclear power generating units in operation. COVID-19 epidemic has certain impacts on the overall economic operation and power demand, which have led to a certain degree of load reduction of nuclear power units after the Spring Festival. With the resumption of work and production, power demand of the community has gradually increased, and the impact of the COVID-19 epidemic on the production and operation of the Group has been gradually reduced. The Group will constantly pay close attention to the development of the COVID-19 epidemic, continue to do a good job in safe production as well as epidemic prevention and control, and evaluate its impact on the financial position and operating results of the Group. As of the approval date of this financial statement, the evaluation work is still in progress.

## (XIV) Other Important Matters

### 1. Segment report

#### (1) Basis and accounting policies of reporting segments

According to the internal organization structure, management requirements and internal reporting system of the Group, the Group's business is divided into 2 operating segments. The Group's management regularly evaluates the operating results of these segments to determine the resources to be allocated and evaluates its results. The Group has identified two reporting segments on the basis of the operating segments, namely nuclear power business operation, sales of electricity and related technical services segment, and engineering, construction and related technical services segment. These reporting segments are recognized based on income, nature, business model, etc. The major products and services provided by the reporting segments of the Group are electricity sales, engineering, construction and technical services.

Segment reporting information is disclosed in accordance to the accounting policies and measurement basis adopted for reporting to the management by each segment, which are consistent with the accounting policies and measurement basis for preparing the financial statements.

#### (2) Financial information of reporting segments

Unit: RMB

Item	Nuclear power business operation, sales of electricity and related technical services segment	Engineering, construction and related technical services segment	Inter-segment offset	December 31, 2019/2019
Operating revenue	54,578,924,431.77	16,189,789,432.54	(9,893,537,609.41)	60,875,176,254.90
Revenue from external customers	54,043,927,447.96	6,831,248,806.94	-	60,875,176,254.90
Revenue from internal segments	534,996,983.81	9,358,540,625.60	(9,893,537,609.41)	-
Operating cost	29,063,575,458.40	15,505,017,107.33	(9,097,132,446.27)	35,471,460,119.46
Total assets	377,416,648,861.92	26,281,356,712.15	(15,722,771,047.28)	387,975,234,526.79
Total liabilities	243,379,473,237.72	22,981,730,258.28	(13,679,836,460.67)	252,681,367,035.33
Income from investment in associates and joint ventures	909,735,471.48	253,295,404.81	(66,618,185.07)	1,096,412,691.22
Income tax expenses	1,895,757,323.93	(19,166,247.69)	(106,736,082.86)	1,769,854,993.38
Long-term equity investment accounted by using the equity method	10,089,159,925.16	1,869,968,500.92	(759,836,615.55)	11,199,291,810.53
Operating profit	16,808,070,318.66	491,114,413.91	(711,573,885.71)	16,587,610,846.86
Net profit	14,874,564,784.33	515,513,141.16	(604,837,802.85)	14,785,240,122.64

Unit: RMB

Item	Nuclear power business operation, sales of electricity and related technical services segment	Engineering, construction and related technical services segment	Inter-segment offset	December 31, 2018/2018
Operating revenue	47,591,049,065.35	15,380,638,834.35	(12,143,768,715.27)	50,827,919,184.43
Revenue from external customers	46,963,642,558.24	3,864,276,626.19	-	50,827,919,184.43
Revenue from internal segments	627,406,507.11	11,516,362,208.16	(12,143,768,715.27)	-
Operating cost	24,956,513,521.33	14,755,623,684.17	(11,208,282,595.94)	28,503,854,609.56
Total assets	359,082,755,090.07	22,190,668,289.43	(12,717,753,019.22)	368,555,670,360.28
Total liabilities	243,542,745,063.37	19,412,126,617.10	(7,524,851,427.40)	255,430,020,253.07
Income from investment in associates and joint ventures	901,190,677.89	64,812,379.61	63,506,775.89	1,029,509,833.39
Income tax expenses	1,609,527,139.84	12,120,979.85	(403,849,691.43)	1,217,798,428.26
Long-term equity investment accounted by using the equity method	9,286,006,061.07	1,579,137,447.85	(662,120,332.00)	10,203,023,176.92
Operating profit	16,413,758,393.05	147,405,992.99	(1,615,398,765.72)	14,945,765,620.32
Net profit	14,755,241,159.98	137,985,244.44	(1,211,549,074.29)	13,681,677,330.13

# Notes to the Financial Statements

For the year ended December 31, 2019

Revenue from external customers by location of revenue sources and non-current assets by location of assets

Unit: RMB

Item	2019	2018
Revenue from external customers in the PRC	54,847,499,631.51	45,390,544,915.88
Revenue from external customers in other countries	6,027,676,623.39	5,437,374,268.55
Total	60,875,176,254.90	50,827,919,184.43

Unit: RMB

Item	December 31, 2019	December 31, 2018
Non-current assets in the PRC	326,009,008,424.59	313,120,988,640.64
Non-current assets in other countries	42,842,811.90	46,765,425.79
Total	326,051,851,236.49	313,167,754,066.43

## Dependence on major customers

In 2019 and 2018, the Group's revenue from Guangdong Power Grid Co., Ltd. was RMB32,728,706,862.92 and RMB25,518,300,748.42 respectively, accounting for 53.76% and 50.21% of the Group's operating revenue for the corresponding period respectively.

In 2019 and 2018, the Group's revenue from Guangxi Power Grid Co., Ltd. was RMB4,909,403,345.46 and RMB4,923,508,523.84 respectively, accounting for 8.06% and 9.69% of the Group's operating revenue for the corresponding period respectively.

In 2019 and 2018, the Group's revenue from HKNIC was RMB5,757,535,774.33 and RMB5,409,246,934.30 respectively, accounting for 9.46% and 10.64% of the Group's operating revenue for the corresponding period respectively.

In 2019 and 2018, the Group's revenue from Fujian Electric Power Co., Ltd. was RMB9,038,513,454.43 and RMB10,220,960,927.38 respectively, accounting for 14.85% and 20.11% of the Group's operating revenue for the corresponding period respectively.

## (XV) Notes to Major Items in the Financial Statements of the Parent Company

### 1. Accounts receivable

#### (1) Accounts receivable disclosed by category

Unit: RMB

Item	December 31, 2019	December 31, 2018
Accounts receivable arising from contracts with customers	758,101,713.04	695,686,105.22
Including: Accounts receivable by subsidiaries within the scope of consolidation	548,072,712.28	481,706,905.25
Group 1	209,572,557.37	213,923,699.97
Group 2	456,443.39	55,500.00
Less: Bad debt provisions	804,622.69	3,878,916.62
Carrying value	757,297,090.35	691,807,188.60

As part of the Group's credit risk management, the Company uses the age of accounts receivable to assess the bad debt loss by grouping of accounts receivable with the same risk characteristics, and the aging data reflects the solvency of such customers when the accounts receivable become due. The credit risk and expected credit loss of each group of accounts receivable are as follows:

Accounts receivable by subsidiaries within the scope of consolidation:

Unit: RMB

Aging	December 31, 2019				December 31, 2018			
	Expected average loss rate	Carrying balance	Bad debt provisions	Carrying value	Expected average loss rate	Carrying balance	Bad debt provisions	Carrying value
Less than 1 year	0.00%	548,072,712.28	-	548,072,712.28	0.00%	412,153,302.78	-	412,153,302.78
1-2 years	0.00%	-	-	-	0.00%	69,553,602.47	-	69,553,602.47
Total		548,072,712.28	-	548,072,712.28		481,706,905.25	-	481,706,905.25

Group 1:

Unit: RMB

Aging	December 31, 2019				December 31, 2018			
	Expected average loss rate	Carrying balance	Bad debt provisions	Carrying value	Expected average loss rate	Carrying balance	Bad debt provisions	Carrying value
Less than 1 year	0.30%	208,686,589.42	626,059.77	208,060,529.65	0.30%	146,371,129.32	434,331.59	145,936,797.73
1-2 years	5.00%	-	-	-	5.00%	67,124,370.65	3,356,218.53	63,768,152.12
2-3 years	20.00%	885,967.95	177,193.59	708,774.36	20.00%	402,600.00	80,520.00	322,080.00
3-4 years	30.00%	-	-	-	30.00%	25,600.00	7,680.00	17,920.00
Total		209,572,557.37	803,253.36	208,769,304.01		213,923,699.97	3,878,750.12	210,044,949.85

Group 2:

Unit: RMB

Aging	December 31, 2019				December 31, 2018			
	Expected average loss rate	Carrying balance	Bad debt provisions	Carrying value	Expected average loss rate	Carrying balance	Bad debt provisions	Carrying value
Less than 1 year	0.30%	456,443.39	1,369.33	455,074.06	0.30%	55,500.00	166.50	55,333.50

# Notes to the Financial Statements

For the year ended December 31, 2019

## (2) Changes in provision for bad debts of accounts receivable

Unit: RMB

Item	Expected credit losses during the whole life (no credit impairment occurred)	2019		Total
		Expected credit losses during the whole life (credit impairment occurred)	Expected credit losses during the whole life (credit impairment occurred)	
January 1, 2019	3,878,916.62	–	–	3,878,916.62
Provisions for expected credit losses for the year	–	–	–	–
Reversals for expected credit losses for the year	(3,074,293.93)	–	–	(3,074,293.93)
December 31, 2019	804,622.69	–	–	804,622.69

## (3) Top five debtors with the largest balances of accounts receivable

Unit: RMB

Name of entity	Carrying balance	Percentage to total accounts receivable (%)	Balance of provisions for bad debts at end of the year
Fangchenggang Nuclear	65,529,383.94	8.64	–
CGN Engineering	61,890,128.77	8.16	–
Yangjiang Nuclear	58,761,443.94	7.75	–
Taishan Nuclear	53,064,637.48	7.00	–
Ningde Nuclear	49,156,221.05	6.48	–
Total	288,401,815.18	38.03	–

## 2. Other receivables

### (1) Total other receivables

Unit: RMB

Item	December 31, 2019	December 31, 2018
Interest receivable	–	–
Dividends receivable	4,542,124,742.99	1,042,667,333.07
Other receivables	42,338,725.62	192,071,525.17
Total	4,584,463,468.61	1,234,738,858.24

### (2) Interest receivable

As at December 31, 2019, the Company had no overdue interest.

### (3) Dividends receivable

#### (a) Dividends receivable

Unit: RMB

Investee	December 31, 2019	December 31, 2018
CGN Nuclear Power Investment Co., Ltd. (中廣核核電投資有限公司)	-	294,746,007.44
CGN Engineering	679,626,192.13	679,626,192.13
CGN Ninghe Investment Co., Ltd. (中廣核寧核投資有限公司)	-	68,295,133.50
Ling'ao Nuclear	1,391,292,681.66	-
China Nuclear Power Operations Co., Ltd. (中廣核核電運營有限公司)	471,205,869.20	-
GNIC	2,000,000,000.00	-
<b>Total</b>	<b>4,542,124,742.99</b>	<b>1,042,667,333.07</b>
Less: Bad debt provisions	-	-
Carrying value	4,542,124,742.99	1,042,667,333.07

#### (b) Significant dividends receivable aged over 1 year

Unit: RMB

Investee	Closing balance	Aging	Reason for being not recovered	Whether an impairment occurred and the basis for its judgment
CGN Engineering	679,626,192.13	1 to 2 years	Not yet reached the point in time to recover	No impairment occurred and CGN Engineering maintained sound operation

### (4) Other receivables

#### (a) Other receivables disclosed by category

Unit: RMB

Item	December 31, 2019				December 31, 2018			
	Expected credit losses within 12 months	Expected credit losses during the whole life (no credit impairment occurred)	Expected credit losses during the whole life (credit impairment occurred)	Total	Expected credit losses within 12 months	Expected credit losses during the whole life (no credit impairment occurred)	Expected credit losses during the whole life (credit impairment occurred)	Total
Other receivables of subsidiaries within the scope of consolidation	33,748,034.66	-	-	33,748,034.66	414,602.21	-	-	414,602.21
Group 1	8,436,459.25	-	-	8,436,459.25	104,096.57	-	-	104,096.57
Group 2	43,873.33	155,928.36	-	199,801.69	292,224.62	212,513,100.80	-	212,805,325.42
Carrying value	42,228,367.24	155,928.36	-	42,384,295.60	810,923.40	212,513,100.80	-	213,324,024.20
Bad debt provisions	25,441.00	20,128.98	-	45,569.98	1,188.96	21,251,310.07	-	21,252,499.03

# Notes to the Financial Statements

For the year ended December 31, 2019

## (b) Changes in bad debt provisions for other receivables

Unit: RMB

	Expected credit losses within 12 months	2019		Total
		Expected credit losses during the whole life (no credit impairment occurred)	Expected credit losses during the whole life (credit impairment occurred)	
January 1, 2019	1,188.96	21,251,310.07	–	21,252,499.03
Provisions for expected credit losses for the period	24,252.04	–	–	24,252.04
Reversals for expected credit losses for the period	–	(21,231,181.09)	–	(21,231,181.09)
December 31, 2019	25,441.00	20,128.98	–	45,569.98

## (c) Top five debtors with the largest balances of other receivables

Unit: RMB

Name of entity	Nature	Amount	Aging	Percentage to total other receivables (%)	Balance of provisions for bad debts at the end of the year
Yangjiang Nuclear	Related party payments	9,559,964.40	Within 1 year	22.64	–
Hongyanhe Nuclear	Related party payments	8,436,459.25	Within 1 year	19.98	25,309.38
Ningde Nuclear	Related party payments	7,120,136.17	Within 1 year	16.86	–
Fangchenggang Nuclear	Related party payments	4,879,313.56	Within 1 year	11.55	–
GNPJVC	Related party payments	3,560,068.12	Within 1 year	8.43	–
Ling'ao Nuclear	Related party payments	3,560,068.11	Within 1 year	8.43	–
Total		37,116,009.61		87.89	25,309.38

## (d) Other receivables by nature

Unit: RMB

Item	December 31, 2019	December 31, 2018
Related party payments	42,184,493.91	212,878,561.78
Reserve funds	199,801.69	445,462.42
Total	42,384,295.60	213,324,024.20

## 3. Other current assets

Unit: RMB

Item	December 31, 2019	December 31, 2018
VAT retained at the end of the year	51,820,326.71	22,030,284.53
Entrusted loans	6,958,000,000.00	5,860,000,000.00
Interest receivable for entrusted loans	8,232,157.50	22,094,408.04
Total	7,018,052,484.21	5,904,124,692.57

## 4. Debt investment

Unit: RMB

Item	December 31, 2019	December 31, 2018
Entrust loans	19,652,463,326.36	10,088,000,000.00
Total	19,652,463,326.36	10,088,000,000.00
Less: Debt investment due within one year	–	4,000,000,000.00
Net	19,652,463,326.36	6,088,000,000.00

## 5. Long-term equity investments

Unit: RMB

Investee	Balance as at December 31, 2018	Additional investment	Reduce investment	Changes in the current year			Balance as at December 31, 2019	Closing balance of impairment provision
				Investment gains/losses recognized under the equity method	Adjustment of other comprehensive gains	Declared cash dividends or profits		
I.Subsidiaries								
GNIC	22,734,177,521.54	-	-	-	-	-	22,734,177,521.54	-
Ling'ao Nuclear	6,883,160,867.23	-	-	-	-	-	6,883,160,867.23	-
Lingdong Nuclear	2,195,503,954.06	-	-	-	-	-	2,195,503,954.06	-
Yangjiang Nuclear	6,162,481,639.48	-	-	-	-	-	6,162,481,639.48	-
China Nuclear Power Operations Co., Ltd. (中廣核電運籌有限公司)	118,807,136.75	-	-	-	-	-	118,807,136.75	-
China Nuclear Power Technology Research Institute Co., Ltd. (中廣核研究院有限公司)	1,520,682,040.74	280,000,000.00	-	-	-	-	1,800,682,040.74	-
Guangdong Daya Bay Nuclear Power Environment Protection Co., Ltd. (廣東大亞灣核電環境保有限公司)	99,602,305.72	-	-	-	-	-	99,602,305.72	-
CGN Nuclear Power Investment Co., Ltd. (中廣核電投資有限公司)	8,840,040,758.54	374,332,895.00	-	-	-	-	9,214,373,653.54	-
CGN Ninghe Investment Co., Ltd. (中廣核寧核投資有限公司)	3,306,159,962.85	-	-	-	-	-	3,306,159,962.85	-
SNPRI	1,061,032,900.00	-	-	-	-	-	1,061,032,900.00	-
Taishan Nuclear	3,075,022,661.30	525,000,000.00	-	-	-	-	3,600,022,661.30	-
Taishan Investment	8,769,244,739.87	-	-	-	-	-	8,769,244,739.87	-
CGN Engineering	2,619,094,819.39	-	-	-	-	-	2,619,094,819.39	-
Lufeng Nuclear	3,278,000,000.00	200,000,000.00	-	-	-	-	3,478,000,000.00	-
Fangchenggang Nuclear	4,559,911,100.00	-	-	-	-	-	4,559,911,100.00	-
Ocean Power	10,147,205.02	-	-	-	-	-	10,147,205.02	-
Hebei Thermal Power	10,086,202.41	-	-	-	-	-	10,086,202.41	-
Power Sales Company	214,754,017.55	-	-	-	-	-	214,754,017.55	-
Hebei Zhongzhuang Clean Thermal Energy Co., Ltd. (河北莊清潔熱能有限公司)	81,700,000.00	-	-	-	-	-	81,700,000.00	-
Subtotal	75,539,609,832.45	1,379,332,895.00	-	-	-	-	76,918,942,727.45	-
II.Associates								
CGN Fund Phase I	2,464,109,124.98	45,571,500.00	-	297,741,058.83	-	242,000,220.00	2,565,421,463.81	-
Xiong'an Xingrong Nuclear Power Innovation Center Co., Ltd. (雄安興融核電創新中心有限公司)	-	20,000,000.00	-	-	-	-	20,000,000.00	-
Subtotal	2,464,109,124.98	65,571,500.00	-	297,741,058.83	-	242,000,220.00	2,585,421,463.81	-
Total	78,003,718,957.43	1,444,904,395.00	-	297,741,058.83	-	242,000,220.00	79,504,364,191.26	-

# Notes to the Financial Statements

For the year ended December 31, 2019

Other explanations:

The Company's long-term equity investment in Lingdong Nuclear and Yangjiang Nuclear is restricted. As at December 31, 2019 and December 31, 2018, the Company's net long-term equity investment with restricted ownership in Lingdong Nuclear was RMB2,195,503,954.06. As at December 31, 2019 and December 31, 2018, the Company's long-term equity investment with restricted ownership in Yangjiang Nuclear was RMB6,162,481,639.48.

## 6. Short-term loans

### (1) Short-term loans by category

Unit: RMB		
Item	December 31, 2019	December 31, 2018
Credit loans	11,794,719,057.66	9,604,850,094.84
Short-term loans interest payable	7,200,874.63	7,656,626.44
Total	11,801,919,932.29	9,612,506,721.28

(2) As at December 31, 2019, the Company had no overdue and unsettled short-term loans.

## 7. Bonds payable

Unit: RMB		
Category	December 31, 2019	December 31, 2018
Long-term bonds	4,499,772,044.29	4,498,219,043.17
Medium-term notes (Note (V)36)	6,987,133,846.98	3,989,825,356.08
Total	11,486,905,891.27	8,488,044,399.25
Less: Bonds payable due within one year	2,499,772,044.29	–
Bonds payable due after one year	8,987,133,846.98	8,488,044,399.25

## 8. Operating revenue and costs

Unit: RMB				
Item	2019		2018	
	Revenue	Cost	Revenue	Cost
From other operations	645,233,705.37	632,109,569.36	572,320,051.24	636,255,717.03

## 9. Investment income

Unit: RMB		
Item	2019	2018
Income from long-term equity investments accounted for using the cost method	6,035,513,838.44	5,154,448,914.73
Income from long-term equity investments accounted for using the equity method	297,741,058.83	301,823,485.66
Income from derivative financial instruments	47,509,589.03	-
Interest income from entrusted loans	661,450,523.88	539,662,405.03
Gains from the disposal of long-term equity investments	-	953,678,637.11
Total	7,042,215,010.18	6,949,613,442.53

## 10. Supplementary information to cash flow statements

### (1) Supplementary information to cash flow statements

Unit: RMB		
Supplementary information	2019	2018
<b>1. Reconciliation of net profits to cash flow from operating activities:</b>		
Net profit	6,028,436,491.88	6,093,908,629.44
Add: Asset impairment loss	-	-
Credit impairment loss ("-" : gains)	(24,281,222.98)	24,042,004.48
Depreciation of fixed assets	13,926,525.49	10,400,903.36
Amortization of intangible assets	71,663,587.57	48,318,880.69
Depreciation of right-of-use assets	72,931,278.57	
Losses from changes in fair value ("-" : gains)	(876,927.32)	(3,149,636.77)
Finance costs	580,313,568.10	412,379,836.82
Investment losses ("-" : gains)	(7,042,215,010.18)	(6,949,613,442.53)
Decrease in operating receivables ("-" : increase)	(118,118,581.30)	(36,614,931.36)
Increase in operating payables ("-" : decrease)	38,778,140.27	108,761,926.28
Net cash flows from operating activities	(379,442,149.90)	(291,565,829.59)
<b>2. Net change in cash and cash equivalents:</b>		
Closing balance of cash	11,045,331,156.75	8,180,127,897.47
Less: Opening balance of cash	8,180,127,897.47	7,101,335,054.79
Net increase in cash and cash equivalents	2,865,203,259.28	1,078,792,842.68

# Supplementary Information

For the year ended December 31, 2019

## 1. Breakdown of Non-recurring Gains or Losses

Unit: RMB

Item	2019	2018
Gains or losses from disposal of non-current assets	142,915,765.36	(665,199.14)
Government grants recognized in profit or loss for the current period (except for those closely related to the Company's business and for fixed or quantitative purposes in accordance with national uniform standards)	315,301,019.19	143,333,834.97
Net gains or losses of the subsidiaries as a result of business combination under common control from the beginning of the period to the combination date <sup>(Note)</sup>	–	415,889.99
Except for the effective hedging transactions related to the normal operation of the Company, the gains or losses from changes in fair value arising from holding financial assets and liabilities held for trading, as well as the investment income arising from disposal of financial assets and liabilities held for trading	50,068,406.00	7,850,932.34
Reversal of impairment provision for receivables which are impaired individually	1,297,136.47	–
Other non-operating income and expenses other than the items above, net	(32,515,730.84)	(46,289,861.93)
Other gains or losses items that meet the definition of non-recurring gains or losses	2,846,497.16	11,136,508.04
<b>Total</b>	<b>479,913,093.34</b>	<b>115,782,104.27</b>
Income tax effect of non-recurring gains or losses	58,103,067.16	15,645,554.97
Effect of non-recurring gains or losses attributable to minority shareholders	42,410,497.94	7,016,832.13
Effect of non-recurring gains or losses attributable to shareholders of the parent company, net	379,399,528.24	93,119,717.17

Note: The amount of this item has taken into account the offset of internal unrealized gains and losses between related parties and the corresponding income tax effect.

## 2. Return on Equity and Earnings Per Share

The statements for return on equity and earnings per share have been prepared by CGN Power in accordance with the relevant requirements under the Rules on the Preparation and Report of Information Disclosure for Companies Publicly Issuing Securities No. 9 – Calculation and Disclosure of Return on Equity and Earnings Per Share (2010 Revision) issued by China Securities Regulatory Commission.

Profit for the reporting period (2019)	Weighted average return on equity (%)	Earnings per share (Note)	
		Basic earnings per share	Diluted earnings per share
Net profit attributable to holders of ordinary shares of the Company	12.16	0.201	0.201
Net profit attributable to holders of ordinary shares of the Company (excluding the non-recurring gains or losses)	11.67	0.193	0.193

Profit for the reporting period (2018)	Weighted average return on equity (%)	Earnings per share (Note)	
		Basic earnings per share	Diluted earnings per share
Net profit attributable to holders of ordinary shares of the Company	12.99	0.191	0.191
Net profit attributable to holders of ordinary shares of the Company (excluding the non-recurring gains or losses)	12.87	0.189	0.189

Note: In 2019 and 2018, the Group does not have dilutive potential ordinary shares. Therefore, diluted earnings per share equals basic earnings per share.

# Company Information

## Joint Company Secretaries

Mr. Jiang Dajin

Mr. Lee Kwok Fai Kenneth

## Auditor

Deloitte Touche Tohmatsu

Certified Public Accountants LLP

30/F, Bund Center, 222 Yan An Road East,

Shanghai, PRC

## Principal Bankers

China Development Bank (Shenzhen Branch)

CDB Financial Center Building

2003, Fuzhong 3rd Road,

Futian District, Shenzhen,

Guangdong Province, PRC

Bank of China Limited (Shenzhen Branch)

1/F, International Finance Building,

2022 Jianshe Road, Luohu District, Shenzhen,

Guangdong Province, PRC

Industrial and Commercial Bank of China Limited (Shenzhen Branch)

1/F, North Tower, World Financial Centre,

5005 Shennan East Road, Luohu District, Shenzhen,

Guangdong Province, PRC

## Legal Advisors

### Hong Kong Law

King & Wood Mallesons

13/F, Gloucester Tower, The Landmark,

15 Queen's Road Central, Central, Hong Kong

### PRC Law

King & Wood Mallesons

28/F, China Resources Tower, 2666 Keyuan South Road, Nanshan District,

Shenzhen, PRC

Agricultural Bank of China Limited (Shenzhen Branch)

ABC Building

5008 Shennan East Road, Luohu District, Shenzhen,

Guangdong Province, PRC

Postal Savings Bank of China Co., Ltd. (Shenzhen Branch)

43/F, Postal Information Complex Building,

5055 Yitian Road, Futian District, Shenzhen,

Guangdong Province, PRC

# Company Information

## Contact Us

### Annual Report

This report was available on our website at [www.cgnp.com.cn](http://www.cgnp.com.cn) on April 2, 2020 and posted on April 3, 2020 to Shareholders who have elected to receive corporate communications from the Company in printed form.

Those Shareholders who (a) received our 2019 Annual Report electronically and would like to receive a printed copy or vice versa; or (b) received a printed copy of our 2019 Annual Report in either English or Chinese language only and would like to receive a printed copy of the other language version or to receive printed copies of both language versions in the future, are requested to write to the Company or the Company's Registrar.

Shareholders may at any time change their choice of the language version or means of receipt of the Company's corporate communications free of charge by notice in writing to the Company or the Company's Registrar.

### Annual General Meeting

The 2019 AGM is scheduled to be held in May 2020, and the relevant details (including shareholders' right to demand a poll) are set out in the circular to be despatched together with a proxy form to the Shareholders.

### Transfer of Shares

For the purposes of receiving final cash dividends and attending the AGM, the details of the procedures of registration of shares and book closure dates are set out in the circular to be despatched to shareholders of the Company.

## Share Registrar

### H Shares

Computershare Hong Kong Investor Services Limited  
Address: Shops 1712-1716, 17th Floor,  
Hopewell Centre, 183 Queen's Road East, Wan Chai, Hong Kong

### A Shares

Shenzhen Branch of China Securities Depository and Clearing Corporation Limited  
Address: 25th Floor, Shenzhen Stock Exchange Building,  
2012 Shennan Boulevard, Futian District, Shenzhen, Guangdong Province, PRC

## Our Stock Name and Stock Code

### H Shares

Stock Name: CGN Power  
Stock Code: HKSE 1816

### A Shares

Stock Name: CGN  
Stock Code: SZSE 003816

## Contact Details

Headquarters in the PRC: 18/F, South Tower, CGN  
Building, No.2002 Shennan Road, Futian District,  
Shenzhen, Guangdong Province, China

Postal Code: 518026  
Telephone: (86) 755 84430888  
Facsimile: (86) 755 83699089  
Email: [IR@cgnpc.com.cn](mailto:IR@cgnpc.com.cn)  
Website: [www.cgnp.com.cn](http://www.cgnp.com.cn)

# FEEDBACK FORM

**Dear Reader:**

Thank you for reading the 2019 Annual Report published by CGN Power. For our continuous improvement in preparation of such reports in future, we attach great importance to and would like to hear your comments on our 2019 Annual Report.

You are welcomed to complete the following form and return the same to us by e-mail, fax or post. We would like to express our deepest gratitude for your valuable comments!

1. Feedback Form (please tick “√” where appropriate)

	I can easily understand the contents				I can get useful information			
	Strongly agree	Agree	Disagree	Strongly Disagree	Strongly agree	Agree	Disagree	Strongly Disagree
Business at a glance for the year								
Chairman’s Statement								
President’s Review								
Shareholder Value								
<b>Finance, Assets and Investment</b>								
Financial Performance and Analysis								
Assets and Investment								
<b>Business Performance and Outlook</b>								
Industry Overview								
Business Performance and Analysis								
Future Outlook								
<b>Capitals</b>								
Production Capital								
Intellectual Capital								
Human Capital								
Financial Capital								
Environmental Capital								
Social and Relationship Capital								
<b>Corporate Governance</b>								
Board of Directors, Supervisory Committee and Senior Management								
Corporate Governance Report								
Directors’ Report								
Audit and Risk Management Committee Report								
Remuneration Committee Report								
Nomination Committee Report								
Nuclear Safety Committee Report								
Supervisory Committee Report								
Risk Management Report								
Financial Report								
Company Information								
Overall Rating of the Annual Report								

2. Which parts of the Annual Report are you most interested in?
3. What additional information do you expect to be provided in the Annual Report?
4. Any other comments/suggestions?

Please provide your information\* below if you so wish:

Name:

Work Unit:

Tel:

E-mail:

\* *Your personal data provided in this form may be used in connection with our management of your request, inquiry, comments or suggestions, or conducting or publishing statistical and data analysis. Your supply of personal data is on a voluntary basis. However, we may not be able to follow up your request or inquiry unless you provide us with your personal data.*

*Your personal data will not be transferred to any third party.*

*Your personal data will be retained for such period as may be necessary for the above purposes and its directly related purpose(s) and will be destroyed within two years after the date of receipt of your personal data.*

Our Contact Details:

Address: 18/F, South Tower, CGN Building, No.2002 Shennan Road, Shenzhen, Guangdong Province, the PRC

Postal Code: 518026

Tel: (86) 755 84430888

Fax: (86) 755 83699089

E-mail: IR@cgnpc.com.cn

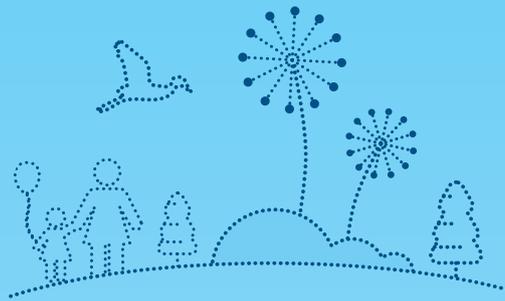
✂

**MAILING LABEL** 郵寄標籤 *Please cut the mailing label and stick this on the envelope to return this Change Request Form to us.*

**No postage stamp necessary if posted in Hong Kong.**  
閣下寄回此更改回條時，請將郵寄標籤剪貼於信封上。  
如在本港投寄毋須貼上郵票。

**Computershare Hong Kong Investor Services Limited**  
香港中央證券登記有限公司  
Freepost No. 37 簡便回郵號碼  
Hong Kong 香港

✂



CGN Power

A world-class nuclear power supplier and service provider  
with international competitiveness



本年度報告以環保紙張印製。  
This annual report is printed on environmentally friendly paper.