

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)*

2017 Annual Report



* For identification purpose only

Contents



Business at a glance for the year

- 1 2017 Major Events
- 2 Key Data for 2017
- 5 Business Model
- 6 [Chairman's Statement](#)
- 9 [President's Review](#)
- 13 [Shareholder Value](#)



Business Performance and Outlook

- 34 Industry Overview
- 36 Business Performance and Analysis
- 53 Future Outlook



Corporate Governance

- 92 Board of Directors, Supervisory Committee and Senior Management
- 101 Corporate Governance Report
- 128 Directors' Report
- 142 Audit and Risk Management Committee Report
- 143 Remuneration Committee Report
- 146 Nomination Committee Report
- 148 Nuclear Safety Committee Report
- 149 Supervisory Committee Report
- 154 Risk Management Report



Finance, Assets and Investment

- 18 Financial Performance and Analysis
- 29 Assets and Investment



Capitals

- 56 Production Capital
- 62 Intellectual Capital
- 68 Human Capital
- 79 Financial Capital
- 86 Environmental Capital
- 88 Social and Relationship Capital



Financial Report

- 164 Independent Auditor's Report
- 171 Consolidated Financial Statements
- 181 Notes to the Consolidated Financial Statements

- 326 **Company Information**

This 2017 Annual Report (“**Annual Report**”) is the fourth annual report of the Company since its listing. We continue to adopt the International Integrated Reporting Framework published by the International Integrated Reporting Council (“**IIRC**”, website: 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 frameworks 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 2016)” of China Securities Regulatory Commission as published on December 9, 2016.

For continuous improvement of the quality of annual report, 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 2016 Annual Report of the Company dated April 7, 2017. This Annual Report has been prepared in Chinese and English respectively. In case of discrepancy, the Chinese version shall prevail, except for the independent auditor's report and the consolidated financial statements prepared in accordance with International Financial Reporting Standards, of which the English version shall prevail.

For 2017, we continue to publish the Environmental, Social and Governance Report (the “**ESG Report**”).

Business at a glance for the year

CGN Power Co., Ltd. (“CGN Power”, the “Company”, “our Company” or “We”) was established on March 25, 2014 and listed on the Main Board of the Hong Kong Stock Exchange on December 10, 2014.

CGN Power is the sole platform for nuclear power generation of 中國廣核集團有限公司 China General Nuclear Power Corporation (“CGNPC”). We build, operate and manage nuclear power plants (“NPPs”), sell electricity generated by these stations, and develop the design and 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 stakeholders, and strive to become a world-class nuclear power supplier and service provider.

2017 Major Events



- In January, the Group obtained effective control over Ningde Nuclear and consolidated it in the consolidated financial statements. Ningde Nuclear has been changed from a joint venture of the Group to a subsidiary of the Group.



- In March, Yangjiang Unit 4 commenced its commercial operation.

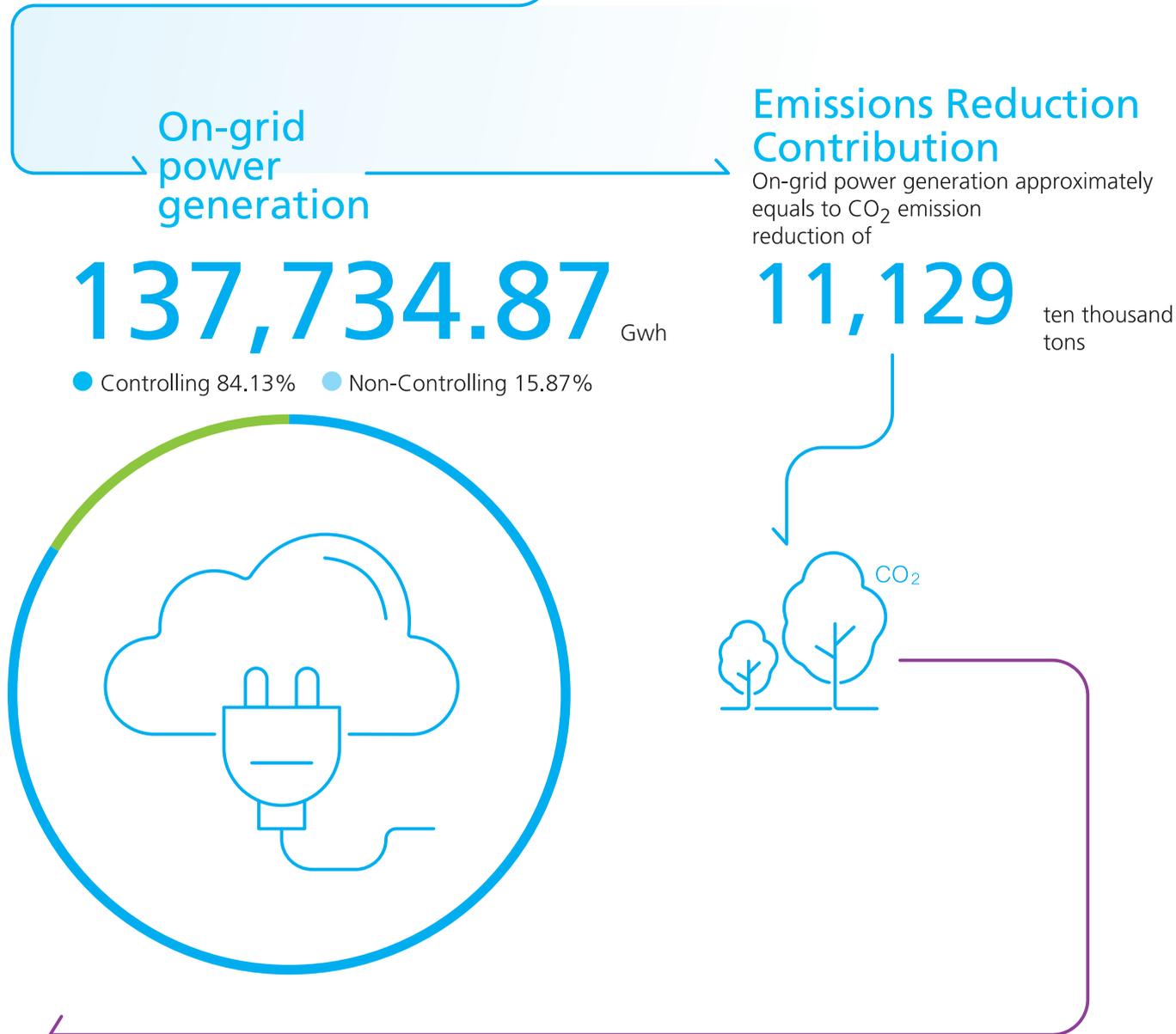


- In August, Taishan Unit 1 completed and passed the hot functional test.

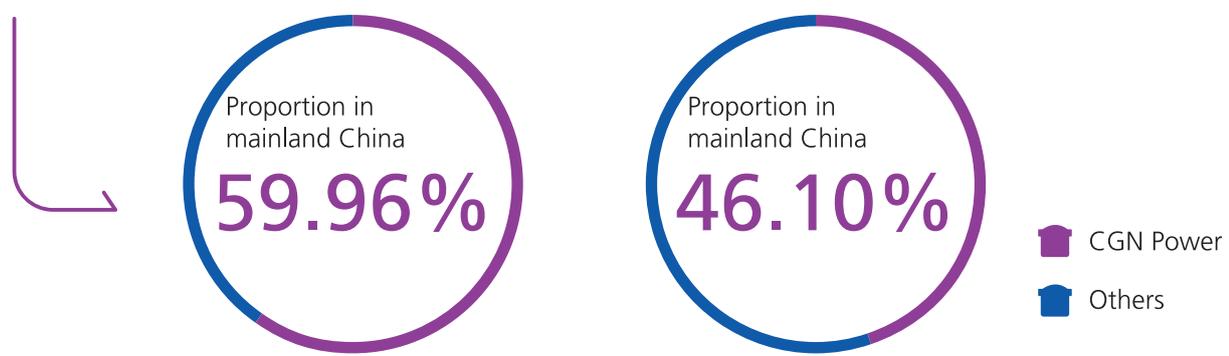


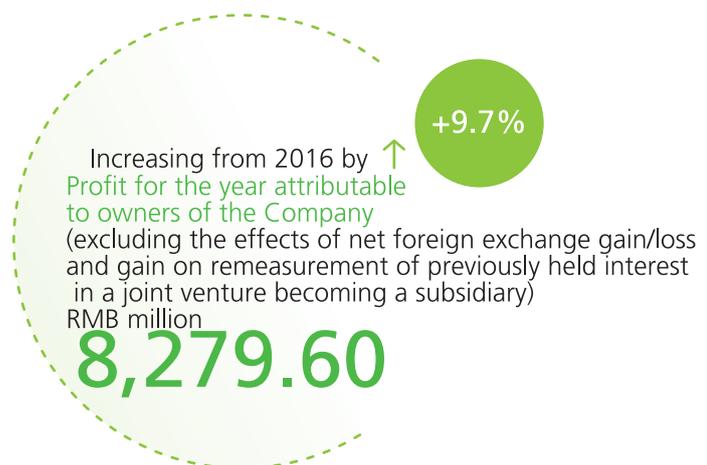
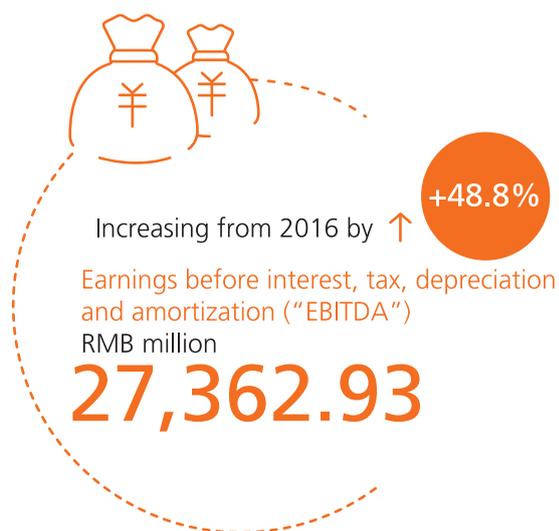
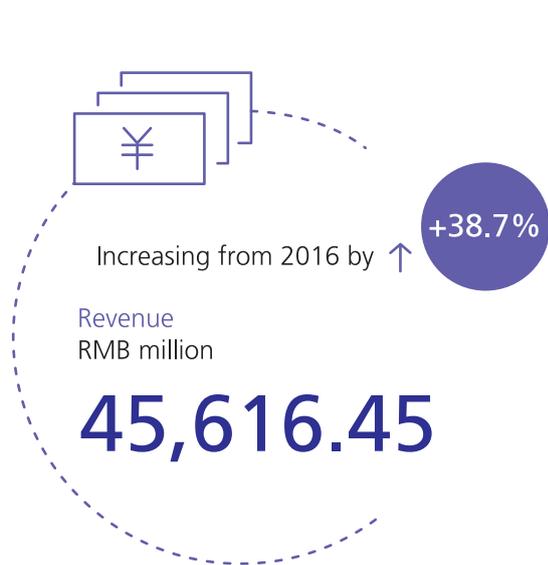
- In December, the disposal of 17% equity interest in Yangjiang Nuclear was completed.

Business at a glance for the year
Key Data for 2017



Installed capacity in operation **Installed capacity under construction**





Financial Highlights

Highlights of consolidated statement of profit or loss and other comprehensive income

	2017	Year ended December 31			
		2016	2015 (restated)*	2014#	2013
		RMB'000			
Revenue	45,616,454	32,890,307	26,795,904	20,718,676	17,365,016
Gross profit	19,582,636	14,357,036	12,020,631	10,076,149	8,148,485
Profit before taxation	13,841,430	9,577,489	9,637,891	9,054,241	6,069,732
Taxation	(1,326,909)	(652,782)	(1,098,865)	(1,228,041)	(998,335)
Profit for the year	12,514,521	8,924,707	8,539,026	7,826,200	5,071,397
Profit for the year attributable to					
– owners of the Company	9,500,319	7,286,934	7,029,383	6,192,761	4,194,547
– non-controlling interests	3,014,202	1,637,773	1,509,643	1,633,439	876,850
Earnings per share attributable to owners of the Company					
– Basic (RMB)	0.209	0.160	0.155	0.186	0.153

Highlights of consolidated statement of financial position

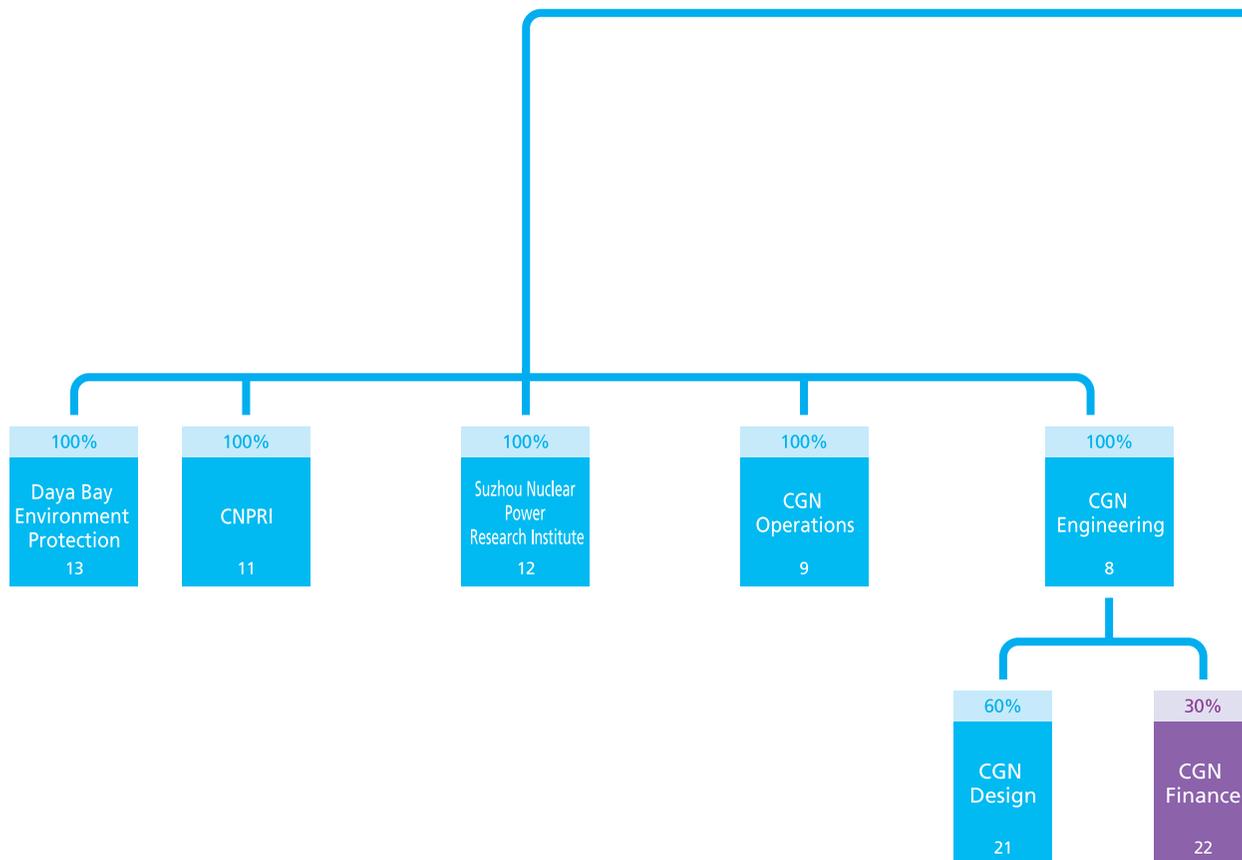
	2017	As of December 31			
		2016	2015 (restated)*	2014 (restated)*#	2013#
		RMB'000			
Total non-current assets	303,157,599	243,809,164	226,067,477	206,316,547	160,189,005
Total current assets	56,369,090	43,824,630	45,298,076	59,279,990	23,890,154
Total assets	359,526,689	287,633,794	271,365,553	265,596,537	184,079,159
Total current liabilities	60,654,365	65,167,663	43,946,874	46,125,052	31,684,220
Total non-current liabilities	196,339,187	140,567,458	142,099,046	134,835,336	102,049,542
Total liabilities	256,993,552	205,735,121	186,045,920	180,960,388	133,733,762
Equity attributable to					
– owners of the Company	65,837,675	56,534,701	60,855,416	62,917,497	31,179,488
– Non-controlling interests	36,695,462	25,363,972	24,464,217	21,718,652	19,165,909
Total equity	102,533,137	81,898,673	85,319,633	84,636,149	50,345,397

* Since the Company acquired subsidiaries under common control in 2016, the consolidated profit and loss and other comprehensive income statements for 2015 and the consolidated statements of financial position as of December 31, 2015 and December 31, 2014 of the Company and its subsidiaries ("the Group") had been restated.

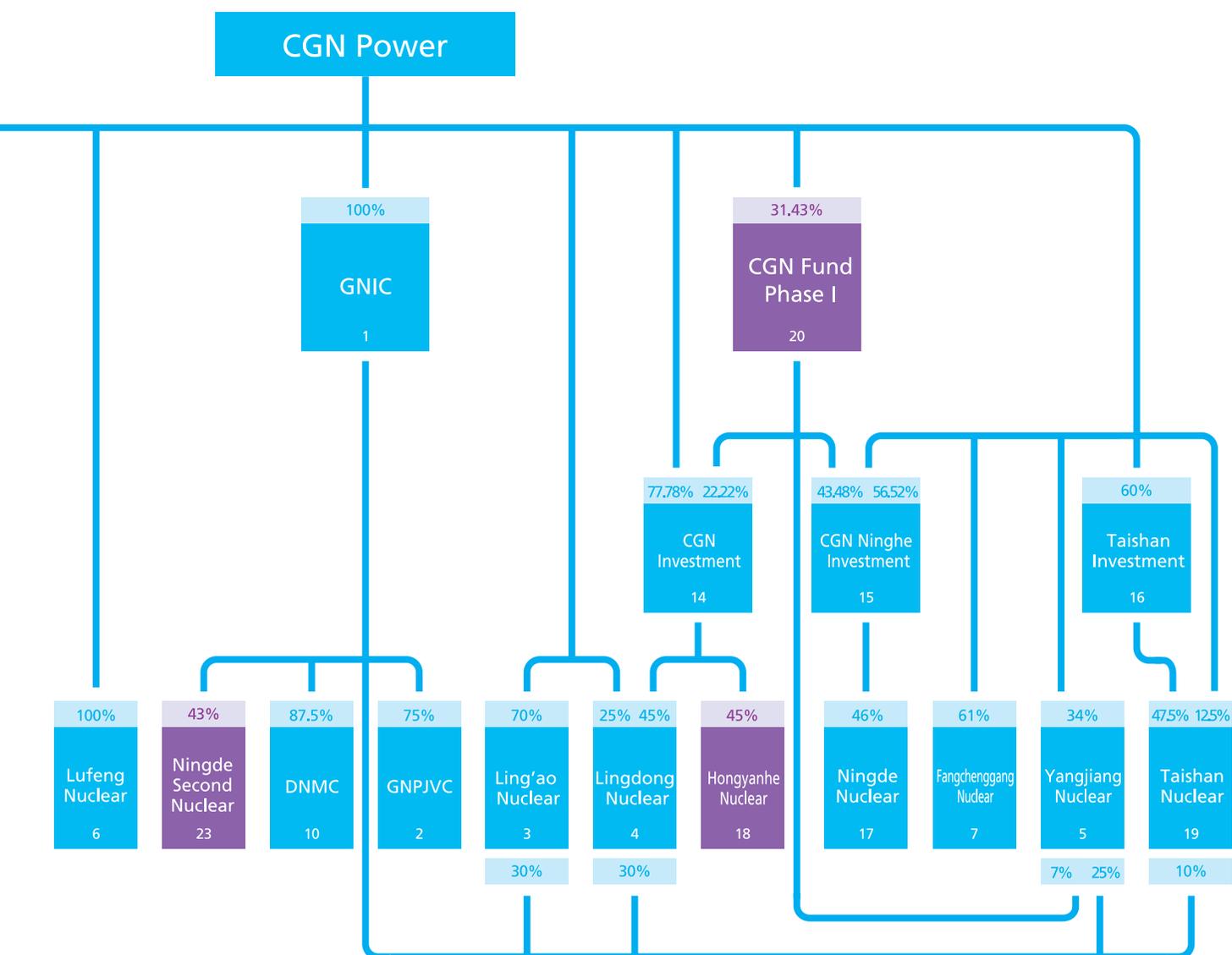
Since the Company acquired subsidiaries under common control in 2015, the consolidated profit and loss and other comprehensive income statements for 2014 and the consolidated statements of financial position as of December 31, 2014 and December 31, 2013 of the Group had been restated.

Business at a glance for the year

100%	1	<p>Guangdong Nuclear Investment Co., Ltd. (廣東核電投資有限公司) ("GNIC") The predecessor of 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>Guangdong Nuclear Power Joint Venture Co., Ltd. (廣東核電合營有限公司) ("GNPJVC") 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 Company Limited (香港核電投資有限公司) ("HKNIC"). GNPJVC owns Daya Bay Nuclear Power Station.</p>
100%	3	<p>Ling'ao Nuclear Power Co., Ltd. (嶺澳核電有限公司) ("Ling'ao Nuclear") Ling'ao Nuclear is a limited liability company established in the PRC on October 4, 1995 with 70% of its equity interests held by the Company and 30% by GNIC, respectively. Ling'ao Nuclear owns Ling'ao Nuclear Power Station.</p>
93.14%	4	<p>Lingdong Nuclear Power Co., Ltd. (嶺東核電有限公司) ("Lingdong Nuclear") Lingdong Nuclear is a limited liability company established in the PRC on September 15, 2004 with 25% of its equity interests held by the Company, 30% by GNIC and 45% by CGN Investment, respectively. Lingdong Nuclear owns Lingdong Nuclear Power Station.</p>
61.20%	5	<p>Yangjiang Nuclear Power Co., Ltd. (陽江核電有限公司) ("Yangjiang Nuclear") Yangjiang Nuclear is a limited liability company established in the PRC on February 23, 2005 with 34% of its equity interests held by the Company, 25% by GNIC, 7% by CGN Fund Phase I, and the remaining 17% and 17% by Guangdong Yudean Group Co., Ltd. (廣東省粵電集團有限公司) and CLP Nuclear Power (Yangjiang) Limited, respectively. Yangjiang Nuclear owns Yangjiang Nuclear Power Station.</p>
100%	6	<p>CGN Lufeng Nuclear Power Co., Ltd. (中廣核陸豐核電有限公司) ("Lufeng Nuclear") Lufeng Nuclear is a limited liability company established in the PRC on February 20, 2008 and a wholly-owned subsidiary of the Company.</p>
61%	7	<p>Guangxi Fangchenggang Nuclear Power Co., Ltd. (廣西防城港核電有限公司) ("Fangchenggang Nuclear") 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 the Company and by Guangxi Investment Group Co., Ltd. (廣西投資集團有限公司), respectively. Fangchenggang Nuclear owns Fangchenggang Nuclear Power Station.</p>
100%	8	<p>China Nuclear Power Engineering Co., Ltd. (中廣核工程有限公司) ("CGN Engineering") 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%	9	<p>China Nuclear Power Operations Co., Ltd. (中廣核核電運營有限公司) ("CGN Operations") 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%	10	<p>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") 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 & Management (China) Limited (中電核電運營管理(中國)有限公司), respectively.</p>
100%	11	<p>China Nuclear Power Technology Research Institute Co., Ltd. (中廣核研究院有限公司) ("CNPRI") CNPRI is a limited liability company established in the PRC on November 8, 2006 and a wholly-owned subsidiary of the Company.</p>
100%	12	<p>Suzhou Nuclear Power Research Institute (蘇州熱工研究院有限公司) Suzhou Nuclear Power Research Institute was established in the PRC on May 13, 1978 and converted into a limited liability company on July 7, 2003. Suzhou Nuclear Power Research Institute is a wholly-owned subsidiary of the Company.</p>
100%	13	<p>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") 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%	14	<p>CGN Nuclear Power Investment Co., Ltd. (中廣核核電投資有限公司) ("CGN Investment") 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%	15	<p>CGN Ninghe Investment Co., Ltd. (中廣核寧核投資有限公司) ("CGN Ninghe Investment") 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%	16	<p>Taishan Nuclear Power Industry Investment Co., Ltd. (台山核電產業投資有限公司) ("Taishan Investment")</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 Yudean Group Co., Ltd. (廣東省粵電集團有限公司).</p>
32.29%	17	<p>Fujian Ningde Nuclear Power Co., Ltd. (福建寧德核電有限公司) ("Ningde Nuclear")</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 Ningde 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%	18	<p>Liaoning Hongyanhe Nuclear Power Co., Ltd. (遼寧紅沿河核電有限公司) ("Hongyanhe Nuclear")</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有限公司), respectively. Hongyanhe Nuclear owns Hongyanhe Nuclear Power Station. Hongyanhe Nuclear is an associate of the Company.</p>
51%	19	<p>Taishan Nuclear Power Joint Venture Co., Ltd. (台山核電聯合有限公司) ("Taishan Nuclear")</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%	20	<p>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")</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 45% and 10% by Three Gorges Capital Holdings Co., Ltd. (三峽資本控股有限公司), 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>

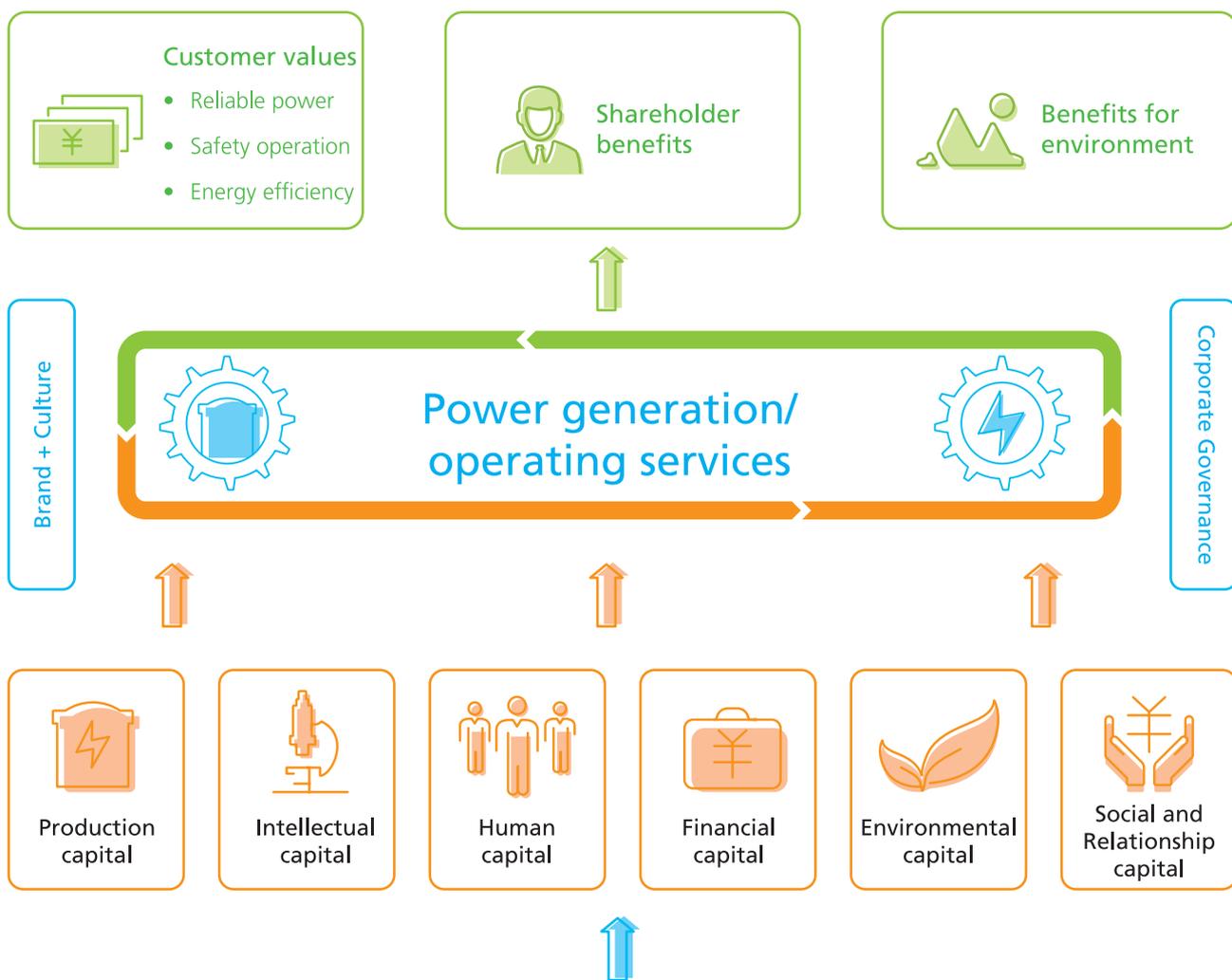


60%	21	<p>China Nuclear Power Design Co., Ltd. (Shenzhen) (深圳中廣核工程設計有限公司) ("CGN Design")</p> <p>CGN Design is a limited liability company established in the PRC on May 18, 2005 with 60% of its equity interest held by CGN Engineering and the remaining 40% by Guangdong Electric Power Design Institute Co., Ltd. (廣東省電力設計研究院).</p>
30%	22	<p>CGN Finance Co., Ltd. (中廣核財務有限責任公司) ("CGN Finance")</p> <p>CGN Finance is a limited liability company established in the PRC on July 22, 1997 with 30% of its equity interest held by CGN Engineering and the remaining 66.66% and 3.34% by CGNPC and CGN Services Group Co., Ltd. ("CGN Services Group") respectively.</p> <p>CGN Finance is an associate of the Company.</p>
43%	23	<p>Fujian Ningde Second Nuclear Power Co., Ltd. (福建寧德第二核電有限公司) ("Ningde Second Nuclear")</p> <p>Ningde Second Nuclear is a limited liability company established in the PRC on December 9, 2016 with 43% of its equity interest held by GNIC and the remaining 47% and 10% by China Datang Corporation Nuclear Power Company Limited (中國大唐集團核電有限公司) and Fujian Funeng Co., Ltd. (福建省能源集團有限責任公司) respectively.</p> <p>Ningde Second Nuclear is an associate of the Company.</p>

Note: The above companies were the major subsidiaries and affiliates of the Company as of December 31, 2017.

Business Model

The core business of the Company focuses on nuclear power-based electricity supply and services. Through years of nuclear power plant (the "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 the various forms of capital, we create the best benefits for our customers, shareholders, employees and the stakeholders.



Strategies

- Maintain and improve safety management levels based on our principle of "Safety First, Quality Foremost, Pursuit of Excellence";
- Strengthen our leading position in the domestic market and pursue international expansion in the nuclear power market;
- Continue to control costs and improve profitability; and
- Be people-oriented to achieve collaborative development.

The Chairman presents our development strategy



Chairman's Statement

Dear Shareholders,

In 2017, CGN Power secured a sustained and steady growth in terms of its operational scale and results. We put 1 new unit into operation and the number of nuclear power units in operation in our possession reached 20, with a total installed capacity of 21.47 gigawatts, accounting for 59.96% of the total nuclear power installed capacity in operation in China. During the year, the number of units under construction of the Company was 8, with a total installed capacity of 10.27 gigawatts, accounting for 46.10% of the total nuclear power installed capacity under construction in China. Revenue of the Group for the full year was RMB45.616 billion, a year-on-year increase of 38.7%. Profit attributable to the owners of the Company for the full year after deducting the net exchange gains/losses and the generation of gain on remeasurement led by the change of Ningde Nuclear from a joint venture to a subsidiary was RMB8.280 billion, a year-on-year increase of 9.7%. Based on the earnings during the year, the Board of Directors recommended the payment of a dividend of RMB0.068 per share (tax inclusive) for the year. In 2017, other external factors, such as the moderate recovery of the world economy, the steady growth of the domestic economy, the continuous optimization of the economic structure and the continuous deepening of the power system reform, have all profoundly influenced our operation and development. The Company's achievement in the face of challenges depends on the concerted efforts of all staff of the Group and the full support of relevant parties, such as shareholders, customers, business partners and relevant ministries and commissions of the state. On behalf of the Board of Directors, 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!

In October 2017, the 19th National Congress of the Communist Party of China (the "**19th National Congress**") was successfully held and has attracted worldwide attention. The report of the 19th National Congress was a blueprint for China's future development, in which the suggestion of "speeding up the reform of ecological civilization system and building a beautiful China" and "promoting the revolution in energy production and consumption, and building a clean, low-carbon, safe and efficient

energy system" have also pointed out the direction for the development of the energy industry. We consider that nuclear energy, which is safe, stable and clean, can play an important role in the reform of energy production, structural adjustment and energy consumption. It will also play an active role in the construction of ecological civilization. The nuclear power industry is still in a period of strategic development opportunities.

In 2017, the construction of various third-generation nuclear power projects in China was carried out smoothly and it is planned to come on stream successively in 2018. On January 9, 2018, President Xi Jinping and French President Emmanuel Macron jointly unveiled the plaque "The First EPR Reactor in the World" for Unit 1 of Taishan. They fully affirmed the cooperation and achievements between China and France in respect of nuclear power for more than three decades. As a party of such cooperation, we are proud of ourselves and are well aware of the great responsibility for the safe development of nuclear power.

We deeply understand that nuclear safety is not only the basis for our own survival and development, the fundamental guarantee for the interests of shareholders, but also our basic responsibility to the society, the environment and the country. We always revere and guard nuclear safety and strive to continuously improve the Company's safety management. At each meeting, the Board of Directors and the Nuclear Safety Committee thereunder listened to the report on the status of safety management, and checked and promoted the implementation of relevant improvement measures. The Nuclear Safety Law of the People's Republic of China (the "**Nuclear Safety Law**") was passed on September 1, 2017 and came into effect on January 1, 2018. The implementation of the Nuclear Safety Law has provided legal protection for the long-term safety and healthy development of the utilization of nuclear energy. We will strictly comply with the requirements of the Nuclear Safety Law to ensure the legal compliance of the construction and operation of our NPPs. We will also keep an open mind to constantly invite and accept the assessment and supervision from international organizations such as the World Association of Nuclear Operators ("**WANO**") and the International Atomic Energy Agency ("**IAEA**") to help us learn from the global nuclear experience.



“Stable
Development and
Sustainability”

In 2017, the term of the first session of the Board of Directors expired. After the approval at the general meeting, we successfully completed the appointment of members to the second session of the Board of Directors. The new session of the Board of Directors has been in office for nearly a year, all directors diligently performed their duties, seriously investigated the operation of the Company, actively studied the latest policies such as national power system reform (the “**Power System Reform**”), and paid attention to the decision-making of major issues concerning the operation and development of the Company and the prevention and control of risks. At the same time, the Board of Directors still focused on communication with shareholders and listened to their suggestions through various channels to gain their trust and support. We will seize the opportunities of development to maintain the steady operation and stable development of the Company. At the same time, we will consider the Company’s results in the current year, development strategy and other possible factors, and propose a reasonable cash dividend distribution ratio so as to create greater value for all shareholders.

Last year, I mentioned that in 2017 China’s Power System Reform will continue to be further promoted. According to the “Analysis and Forecast Report on the Situation of Electricity Supply and Demand in China in 2017-2018” issued by the China Electricity Council (“CEC”), the scale of electricity transactions

in the market in China in 2017 has further expanded, with a total transaction volume of 1.63 trillion kWh, representing an increase of 45% year-on-year. Faced with the changes in the external environment, the Board of Directors focused on the implementation of the Company’s power marketing strategy and urged the implementation of the “Provisional Measures for Nuclear Power Offtake under the Condition of Securing Nuclear Safety” at different levels, taking into consideration the regional characteristics and local policies, seizing the opportunities and actively participating in the power market, to strive for more volume of power generation. Throughout 2017, the share of the electricity from the electricity transactions in the market that we participated in has expanded to a certain extent as compared with that of 2016, and the average tariff for this part of electricity is better than that of 2016, achieving the Company’s annual power marketing goal.

The development of the nuclear power industry is inseparable from the support of the country and society. While steadily developing the company, we adhere to the principles of “serving the public” and “giving back to society” and take the initiative to shoulder the social responsibilities of enterprises, which includes supporting public welfare through philanthropy and charity to alleviate poverty, promote education, encourage technological development and provide natural disaster relief. The report of the 19th National Congress sets forth the principle of “winning the battle against poverty”, “mobilizing the energies of our whole Party,

Chairman's Statement

our whole country, and our whole society" and "ensuring that by the year 2020, all rural residents living below the current poverty line have been lifted out of poverty". In 2017, the Company actively participated in the targeted poverty alleviation work in some areas. We carried out a poverty alleviation project with the concept of nuclear power project management, focusing on beneficial effects and sustainable development. It was fully affirmed by the local government and the masses, enhancing public recognition of the Company and maintaining the Company's positive social image.

In light of the development needs of the Company, in order to optimize the capital structure of the Company and reduce its financial risk, after careful consideration we recommend an initial public offering of RMB ordinary shares (A shares) in the PRC of not more than 10% of the total issued share capital of the Company, the proceeds raised will be used for the construction of units under construction and the replenishment of the Company's liquidity. Regarding the issuance of A shares, the Company has released an announcement and circular in February and March 2018, respectively. Shareholders are reminded to refer to such documents for details. The Company will hold an extraordinary general meeting in April and propose a resolution to shareholders for approval.

The report of the 19th National Congress pointed out that the development of the country has entered a new era, we must seize the historical opportunity and plan for more long-term development. We will insist on safety first and scientific and technological innovation, improve our corporate governance, enhance our intrinsic value, strengthen our market awareness, fulfill corporate social responsibility, and give back to the shareholders and society with our steady performance and sustainable development.

Zhang Shanming
Chairman
March 8, 2018



The Chairman presents our development strategy



President's Review

Dear Shareholders,

In 2017, the number of nuclear power generating units in operation of CGN Power reached 20 and the number of nuclear power units under construction was 8 in total. I will present a summary of the key work and performance of the Company for the year and highlight our major plans for the future. The detailed analysis of the Company's business is set forth in the relevant sections of this Annual Report.

Based on the management strategy of "specialization, centralization and standardization" of management (the "SCS"), we progressively realized our implementation plan for lean management. With the goal of improving effectiveness and efficiency, we focused on the improvement and optimization of various businesses and strived to enhance the safety and quality of NPPs and the efficiency of the Company's operation.

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 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. In 2017, we solidified and strengthened the foundation by implementing upgrade and improvement plan for multi-site nuclear safety, safety and quality from different perspectives, so as to enhance the safety management level effectively.

The building of nuclear safety culture is a continuous routine work. Behavior is guided by awareness. We further strengthened the entire staff's awareness of nuclear safety culture and continued to promote the development of the habit of behaving safely. In addition to the safety cultural education among all the staff of the Company, we focused on analyzing different attributes including types of employees and nature of work in order to conduct targeted promotional campaigns. For instance, for senior management, we continued to organize the "Forum on Nuclear Safety Management Enhancement" to reinforce their awareness of safety culture and reach consensus on the subsequent objectives of nuclear

safety management. For the leaders of each NPP, we require them to implement "On-site Management", encouraging them to resolve problems on-site. For entry-level employees, we launched specific activities of "Compliance with Procedures and Objection to Violations" for all staff to strengthen their awareness of strictly observing procedures during the course of work. We also conducted activities such as the selection of "CGN Power Safety Guardians" and commended the employees for their outstanding contributions to various aspects of safety management. The Company's concept of safety culture became popular through these activities, ensuring that the requirements of safety management were met among employees' work and that they formed the habit of behaving safely.

In 2017, our safety management system was effective in identifying hidden risks in a timely manner and such risks were reported and handled according to relevant procedures. During the whole year, there was no occurrence of level 1 or above operational events according to the INES, International Nuclear Event Scale of the International Atomic Energy Agency, in our operating units. The safe and efficient construction of nuclear power projects will lay a solid foundation for the safe and stable operation of NPPs after they are put into operation. In 2017, according to our assessment, all nuclear power projects under construction had achieved Level 7 or above on the Comprehensive Safety, Quality and Environment Benchmark Rating*. Safety management should never be self-satisfied and relaxed, whether it is about the production and operation of NPPs or its construction. We must continue to pursue higher goals and work continuously for it.

* The Comprehensive Safety, Quality and Environment Benchmark Rating is based on the assessment developed in accordance with our Standardization of Safety, Quality and Environment of Nuclear Power Engineering and International Benchmarking Manual ((《核電工程安質環標準化及國際標桿評價手冊》)). The rating is divided into ten grades and ranges from low to high with 5-6 representing "Good", 7-8 "Advanced" and 9-10 "International Benchmark". Standardization of Safety, Quality and Environment of Nuclear Power Engineering and International Benchmarking Manual synthesizes relevant international and national standards, International Safety Rating System (ISRS), good practices of many international engineering management companies in respect of Safety, Quality and Environment, and our many years of practical experience in the construction of NPPs.



"Quality and Efficiency
Enhancement and
Safety Development"

Discovery of inadequacy helps one to improve and achieve better performance. We actively cooperate with the supervision and inspection of the regulatory authorities of the PRC at all levels in line with the principles of honesty and transparency. We also insist on benchmarking with international counterparts and invite international organizations to carry out peer reviews. In 2017, according to the unified plan of the PRC, we accepted the Four Ministries and Commissions of the State (the “**Four Ministries and Commissions**” refers to the National Development and Reform Commission, the National Energy Administration, the Ministry of Environmental Protection and State Administration for Science, Technology and Industry for National Defence) comprehensive safety inspection of all NPPs. In addition, WANO also conducted peer reviews of some of our NPPs.

Operation Management

In 2017, Yangjiang Unit 4 commenced commercial operation and the number of generating units in operation of the Company increased to 20. We continued to implement “SCS” management strategies and to strengthen integration and coordination of resources. All of the operating units were operated safely and stably during the year. In 2017, according to the ranking of performance indicators of WANO, 73.8% of the indicators among the 20 operating units of the Company achieved top 1/4, with 68.3% achieving top 1/10. Compared with the figures for 2016, the proportion of indicators achieving top 1/4 and top 1/10 was increased. While the number of the operating units continued to increase, these performance indicators are also improving. This reflected that our ability to manage and control multiple units has been enhanced continuously during the implementation.

As the number of the operating units increased, organization of refueling outages became more complicated. The number of refueling outages commencing in 2017 was 13, of which 5 were the first outage and another 5 were annual outages which are highly overlapped. By specialized, centralized and standardized outage management, we were able to improve various aspects such as manpower, material, financial resources, resources allocation and outage plans, so as to successfully complete all outage work during the year. Both the quality and duration of outage achieved the planned targets. The Company’s overall outage management capabilities were further improved.

Under the circumstances, in which the supply and demand of electricity was still at ease and the current power system reform continued to deepen, the Company’s sale of electricity in 2017 was indeed not optimistic. However, we strived to ensure the safe and steady operation of generating units, with on-grid power generation of 137,734.87 GWh, representing a year-on-year increase of 19.2%. On the one hand, this is because we actively communicated with all levels of government and the power grid to strive to promote the implementation of the Provisional Measures for Nuclear Power Offtake under the Condition of Securing Nuclear Safety 《(保障核電安全消納暫行辦法)》 in various areas. On the other hand, on the basis of safeguarding overall interests of the Company, we adopted appropriate authorization under integrated management. Each nuclear power base took into account the supply and demand of electricity in different areas and the actual situation in which nuclear power units enter into market-based electricity transactions to strive for more planned power generation and better market power generation and electricity prices. With the support from relevant ministries of the State, local governments and power grid companies, we seized the market opportunity and achieved a market power output of 19,878.99 GWh, with a definite improvement in unit utilization rate, whilst the average electricity tariff on this part of the electricity consumption was better than last year.

Construction Project

As of the end of 2017, the number of nuclear power generating units under construction was 8 in total.

Taking design as the lead and planning as the direction, we implement 6 main controls on construction projects, namely progress, technologies, quality, safety, environment, and investment. We strengthened capabilities of the design of engineering and construction specialization. Meanwhile, we vigorously promoted technological innovation and management innovation, leading to the steady promotion of projects under construction and full controllability of costs and the schedule.

Taishan nuclear power project was the first third-generation nuclear power project we built. In 2017, Taishan Unit 1 completed its hot functional test and the result was compliant with the design requirements. We will always adhere to using a risk-oriented approach, active prevention and conservative decision-making. On the basis of ensuring safety and quality, we completed a series of work as planned before commercial operation.

President's Review

Research and Development

Our technology research and development is aimed at helping us 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 nuclear plants, but also value the mastery of technologies needed for future development, in order to continuously enhance the core competitiveness and development ability of the Company, helping the future business expansion, market competition and sustainable development.

After China confirmed that the third-generation technology will be adopted in more nuclear power projects in the future, the technologies we have mastered basically cover most of the third-generation of technologies in the world. We actively participate in the study of the application of various leading-edge technologies in the field of nuclear power in order to keep in reserve our technological capabilities for the future development of the Company. Meanwhile, we also pay attention to the transformation and application of scientific research achievements as well as interoperability between scientific research and technological improvement during the construction and operation of NPPs, creating greater value for the safety and economy of nuclear power operations.

During 2017, the number of patents we have applied for has reached 853. Five of our invention patents were awarded the "China Excellent Patent Award". These patents consolidated the basis for the Company's innovation. The introduction and application of the results of this scientific research is explained in detail in the "Intellectual Capital" section of this Annual Report.

Future Outlook

With China's economic development entering into a new era and the ongoing intensified implementation of power system reform, the Company's operations 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 principle 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 actively respond.

In 2018, we plan to have 2 units put into commercial operation. We will implement lean management to promote improvement in the Company's various areas for the purpose of enhancing effectiveness and efficiency. We will consistently place high attention to the safety and stability of units in operation, continuously improve the level of nuclear safety management, continue to enhance market awareness and take the initiative to adapt to the changes in the electricity market so as to achieve the desirable overall efficiency. In relation to projects under construction, we will utilize our expertise and continue to optimize the construction management so as to ensure the construction quality of projects and enhance the control over the construction period and costs. We will also continue to invest in the research of new technologies to enhance our independent research and development capabilities so that we can fully adapt to the new technologies needed for the future development of nuclear power.

In 2018, we will join forces with different parties and make an utmost effort to realize the safety development of the Company, and embrace the new era with a new look.

Gao Ligang
President
March 8, 2018

Shareholder Value

The Board of Directors, 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 reinforce their trust in the Company through interaction.

As at December 31, 2017, CGN Power had 3,919 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, 2016 was RMB0.051 (tax inclusive) per share and the Company completed the distribution on July 31, 2017.

The Board has proposed to declare a final cash dividend of RMB0.068 (tax inclusive) per share for the year from January 1, 2017 to December 31, 2017 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 2017 annual general meeting (the “AGM”) of the Company and is expected to be distributed in July, 2018.

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 33% of the distributable net profits for the year.

The Mechanism of Communication with Shareholders and Investors

Investor relations have always been regarded as highly important by 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. In 2017, the Company summarized its communication activities with shareholders and investors since its listing, optimized the internal processes of the Company to promote the efficiency and effect of its communication activities with shareholders and investors.

The Company continues to help our shareholders to 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.

Shareholder Value

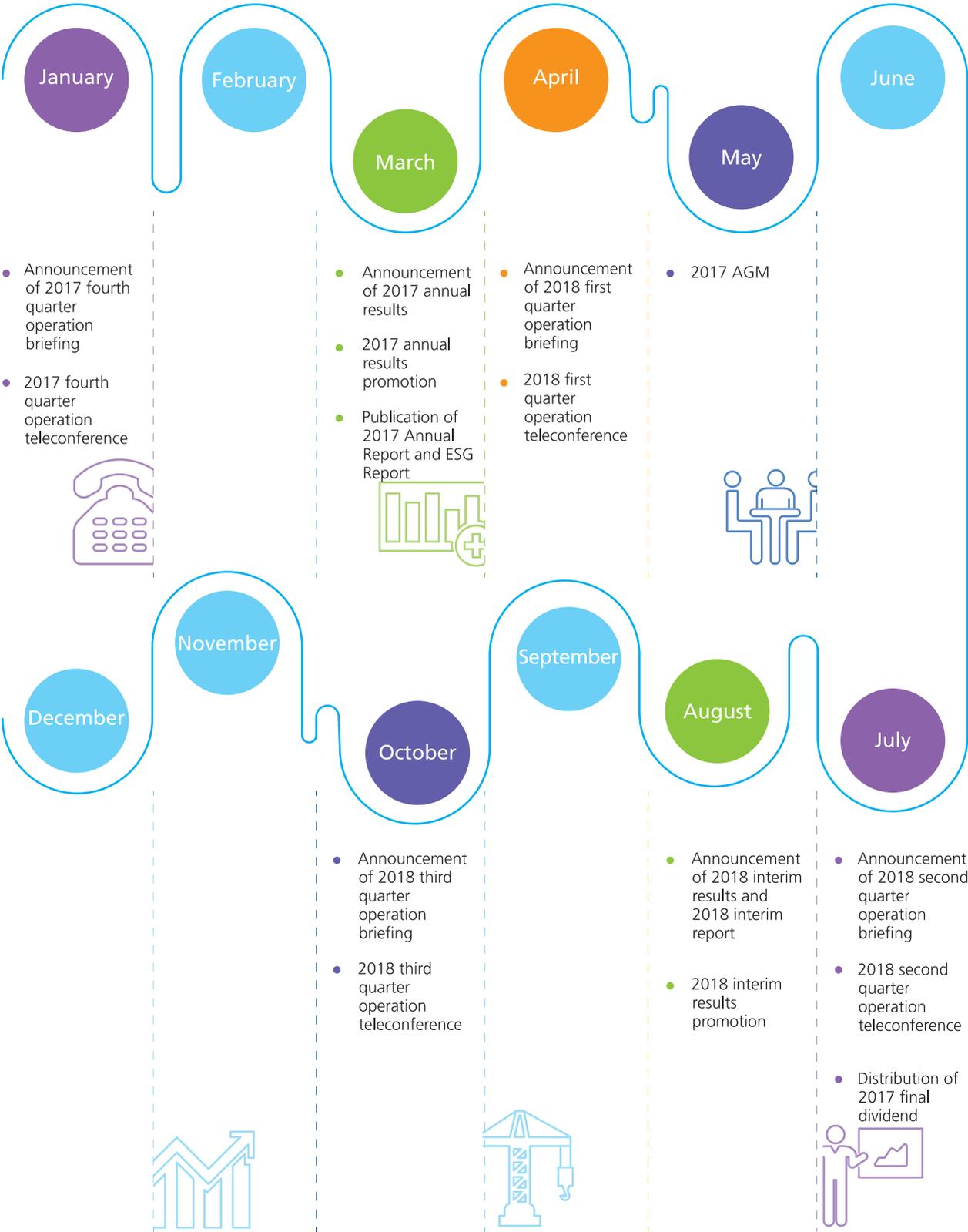
Main channels of communication with shareholders and investors and the communication activities in 2017:

- Annual report, interim report, quarterly operation briefings and ESG Report of the Company.
- AGM: The 2016 AGM was held in Hong Kong on May 24, 2017.
- Company website (www.cgnp.com.cn): An Investor Relations column has been established to publish information and materials relevant to investors.
- Results announcement conference: The 2016 annual results announcement conference was held in Hong Kong on March 16, 2017.
- Hotlines and e-mails for investor relations: Promptly reply to daily enquiries from shareholders and investors.
- Results roadshow: The Company organized the 2016 annual results roadshow in March 2017 and the 2017 interim results roadshow in August 2017.
- Investors meeting: The Company arranges interviews between the management and the investors from time to time to listen to their opinions and suggestions.
- Reverse roadshow: The Company organizes shareholders, investors, analysts and other relevant persons to conduct on-site inspections of the nuclear power bases from time to time, so that they can understand the operation and construction status of the NPPs first-hand. The Company respectively arranged for investors and analysts to conduct on-site inspections of the Hongyanhe nuclear power base and the Ningde nuclear power base in June and December 2017 respectively.
- Analyst teleconference: Organize quarterly operation status teleconferences, to provide quarterly updates on safety production and operation to shareholders, investors and analysts and answer their questions. Moreover, teleconferences will also be arranged in accordance with the operating conditions of the Company from time to time. The Company held quarterly operation teleconferences in January, April, July and October 2017 respectively, and held an ad-hoc teleconference in respect of a relevant announcement published in July 2017.

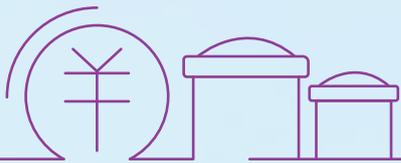


In June 2017, the Company organized on-site inspections of the Hongyanhe Nuclear Power Station for its investors and analysts.

Shareholders' Diary 2018



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

29 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.

With the consolidation of Ningde Nuclear into the Group's consolidated financial statements since January 1, 2017, profit before taxation of the Group increased by RMB1,785.0 million due to the gain on remeasurement of interest previously held in Ningde Nuclear by the Group. As of December 31, 2017, Ningde Nuclear contributed to the increase in the Group's revenue, profit before taxation, total assets, total liabilities and total equity. The relevant details are set forth in note 47 to the consolidated financial statements.

KEY FINANCIAL INDICATORS

Item	2017	2016
Indicators of profitability		
EBITDA margin (%) ⁽¹⁾	60.0	55.9
Net profit margin (%) ⁽²⁾	27.4	27.1
Indicators of investment returns		
Return on equity attributable to owners of the Company (%) ⁽³⁾	15.5	12.4
Return on total assets (%) ⁽⁴⁾	6.2	4.9
Indicators of solvency		
Asset-liability ratio (%) ⁽⁵⁾	71.5	71.5
Debt to equity ratio (%) ⁽⁶⁾	204.1	195.4
Interest coverage ⁽⁷⁾	2.0	1.7

Notes:

- (1) The sum of profit before taxation, finance costs, depreciation and amortization divided by revenue and multiplied by 100%.
- (2) Profit for the year divided by revenue and multiplied by 100%.
- (3) Profit for the year attributable to owners of the Company divided by average equity attributable to owners of the Company (the arithmetic mean of the opening and closing balances) and multiplied by 100%.
- (4) The sum of profit before taxation and finance costs divided by the average sum of current assets and non-current assets (the arithmetic mean of the opening and closing balances) and multiplied by 100%.
- (5) The sum of current liabilities and non-current liabilities divided by the sum of current assets and non-current assets and multiplied by 100%.
- (6) Net debt (the total amount of bank and other borrowings less cash and cash equivalents and other deposits over three months) divided by total equity and multiplied by 100%.
- (7) The sum of profit before taxation and finance costs divided by the sum of finance costs and capitalized interest.

FINANCIAL RESULTS AND ANALYSIS

	For the year ended December 31,		Fluctuations increase/ (decrease) RMB'000	Percentage change increase/ (decrease) %
	2017 RMB'000	2016 RMB'000		
Revenue	45,616,454	32,890,307	12,726,147	38.7
Net foreign exchange losses	(434,810)	(528,532)	93,722	17.7
Gain on remeasurement of interest previously held in a joint venture becoming a subsidiary	1,785,082	—	1,785,082	N/A
Effects of net foreign exchange losses on profit for the year attributable to owners of the Company	(213,672)	(257,143)	43,471	16.9
Effects of gain on remeasurement of interest previously held in a joint venture becoming a subsidiary on profit for the year attributable to owners of the Company	1,434,393	—	1,434,393	N/A
Profit for the year attributable to owners of the Company (excluding the effects of net foreign exchange losses and gain on remeasurement of previously held interest in a joint venture becoming a subsidiary)	8,279,598	7,544,077	735,521	9.7
Profit for the year attributable to owners of the Company	9,500,319	7,286,934	2,213,385	30.4

Financial Performance and Analysis

REVENUE

	For the year ended December 31,		Fluctuations increase/ (decrease) RMB'000	Percentage change increase/ (decrease) %
	2017 RMB'000	2016 RMB'000		
Sales of electricity ⁽¹⁾	41,543,214	28,114,633	13,428,581	47.8
Revenue from construction contracts and design projects	2,680,489	2,820,090	(139,601)	(5.0)
Revenue from technical and training service ⁽²⁾	722,427	1,029,728	(307,301)	(29.8)
Sales of equipment and other goods ⁽³⁾	670,324	925,856	(255,532)	(27.6)
Total revenue	45,616,454	32,890,307	12,726,147	38.7

- (1) The increase in revenue from sales of electricity was primarily due to the increase of 53.36% in our subsidiaries' on-grid power generation during the year compared with 2016, which in turn was mainly caused by the inclusion of Ningde Nuclear in the Group's consolidated financial statements since January 1, 2017, the commencement of commercial operations of Fangchenggang Unit 2 on October 1, 2016, and the commencement of commercial operations of Yangjiang Unit 4 on March 15, 2017.
- (2) The decrease in revenue from technical and training service was mainly due to the inclusion of Ningde Nuclear in the Group's consolidated financial statements since January 1, 2017, whereas the revenue of Suzhou Nuclear Power Research Institute, CNPRI, CGN Operations, which are subsidiaries of our Company, from technical service to Ningde Nuclear are no longer recognized as revenue in the Group's consolidated financial statements for 2017.
- (3) The decrease in sales of equipment and other goods was primarily due to the fact that the amount for 2016 included the revenue of China Techenergy Co., Ltd. (北京廣利核系統工程有限公司), and the disposal of equity interest in such company was completed in the second half of 2016.

COST OF SALES AND SERVICES

	For the year ended December 31,			
	2017 RMB'000	2016 RMB'000	Fluctuations increase/ (decrease) RMB'000	Percentage change increase/ (decrease) %
Cost of sales of electricity	21,848,822	14,139,637	7,709,185	54.5
Of which: Cost of nuclear fuel ⁽¹⁾	6,765,809	4,212,184	2,553,625	60.6
Depreciation of property, plant and equipment ⁽¹⁾	6,263,623	4,052,283	2,211,340	54.6
Provision for spent fuel management ⁽²⁾	1,187,125	1,061,545	125,580	11.8
Cost of construction and design contracts	2,513,223	2,499,180	14,043	0.6
Others ⁽³⁾	1,044,225	1,457,388	(413,163)	(28.3)
Total cost of sales and services	25,406,270	18,096,205	7,310,065	40.4

- (1) The increase in cost of nuclear fuel and depreciation of property, plant and equipment was mainly due to the increase of 53.36% in our subsidiaries' on-grid power generation during the year compared with 2016, which in turn was caused by the inclusion of Ningde Nuclear in the Group's consolidated financial statements since January 1, 2017, the commencement of commercial operations of Fangchenggang Unit 2 on October 1, 2016, and the commencement of commercial operations of Yangjiang Unit 4 on March 15, 2017.
- (2) The increase in provision for spent fuel management was primarily due to the provision for spent fuel management for Lingdong Unit 2 which has reached 5 years of commercial operation in August 2016.
- (3) The decrease in other cost was mainly due to the inclusion of Ningde Nuclear in the Group's consolidated financial statements since January 1, 2017, whereas the cost of Suzhou Nuclear Power Research Institute, CNPRI and, CGN Operations, the subsidiaries of our Company, incurred for providing Ningde Nuclear with technical service are no longer recognized as other cost in the Group's consolidated financial statements for 2017.

Financial Performance and Analysis

OTHER INCOME

	For the year ended December 31,		Fluctuations increase/ (decrease) RMB'000	Percentage change increase/ (decrease) %
	2017 RMB'000	2016 RMB'000		
Value-added tax refunds ⁽¹⁾	1,386,129	1,315,548	70,581	5.4
Interest income from bank deposits	26,997	53,407	(26,410)	(49.5)
Interest income from an associate	179,673	172,738	6,935	4.0
Government grants ⁽²⁾	118,535	79,715	38,820	48.7
Others	45,373	36,282	9,091	25.1
Total other income	1,756,707	1,657,690	99,017	6.0

- (1) The increase in value-added tax refunds was mainly due to the inclusion of Ningde Nuclear in the Group's consolidated financial statements since January 1, 2017, the VAT refund policy of Ling'ao Nuclear Unit 1 being expired in May 2017, and the fact that the process of value-added tax refunds varied as affected by many factors.
- (2) The increase in government grants was mainly due to an increase of income from government grants as recognized by technological and research and development projects.

OTHER GAINS AND LOSSES

	For the year ended December 31,			
	2017 RMB'000	2016 RMB'000	Fluctuations Increase/ (decrease) RMB'000	Percentage change increase/ (decrease) %
Net foreign exchange losses ⁽¹⁾	(434,810)	(528,532)	93,722	17.7
Gain on remeasurement of interest previously held in a joint venture becoming a subsidiary ⁽²⁾	1,785,082	—	1,785,082	N/A
Others	3,407	7,999	(4,592)	(57.4)
Other gains and losses	1,353,679	(520,533)	1,874,212	360.1

- (1) Responding to the needs to procure certain equipment, spare parts and related services for nuclear power projects from overseas market, we held some foreign currency debts, the majority of which refers to the EURO debt owed by Taishan Nuclear, thus the fluctuation in foreign exchange rates of EURO against RMB will affect our profits. As for management policies on the risk of fluctuation in exchange rates, the Company always targets at cost control instead of earnings. In 2017, net foreign exchange losses were RMB434.8 million and the impact on profit for the year attributable to owners of the Company was at loss of RMB213.7 million, mainly due to the fact that the exchange rate of EURO against RMB increased significantly. The exchange rate of EURO against RMB increased from 7.3068 at the end of 2016 to 7.8023 at the end of 2017. For the corresponding period in 2016, net foreign exchange losses were RMB528.5 million and the impact on profit for the year attributable to owners of the Company was at loss of RMB257.1 million, mainly due to the significant appreciation of the exchange rate of EURO against RMB, with the exchange rate increasing from 7.0952 at the end of 2015 to 7.3068 at the end of 2016.
- (2) The increase in gain on remeasurement of interest previously held in a joint venture becoming a subsidiary was mainly due to the fact that Ningde Nuclear began to be included in the Group's consolidated financial statements since January 1, 2017, and the difference between the fair value of the equity interest of Ningde Nuclear and the carrying amount of the equity interest of Ningde Nuclear accounted for as a joint venture was recognized as a gain.

SHARE OF RESULTS OF ASSOCIATES

Our associates mainly include Hongyanhe Nuclear, CGN Fund Phase I and CGN Finance. Our share of results of associates increased from RMB539.4 million in 2016 to RMB599.6 million in 2017, primarily due to the increase in profit of Hongyanhe Nuclear for the year as compared with 2016 resulting from the commencement of commercial operation of Hongyanhe Unit 4 on June 8, 2016.

Financial Performance and Analysis

SHARE OF RESULTS OF JOINT VENTURES

As Ningde Nuclear has been changed from a joint venture to a subsidiary on January 1, 2017, our share of results of joint ventures decreased from RMB751.1 million in 2016 to RMB3.0 million in 2017.

FINANCE COSTS

Our finance costs increased from RMB4,083.3 million in 2016 to RMB6,287.2 million in 2017, primarily due to the inclusion of Ningde Nuclear in the Group's consolidated financial statements since January 1, 2017, and the fact that with the commencement of commercial operations of Fangchenggang Unit 2 on October 1, 2016 and the commencement of commercial operations of Yangjiang Unit 4 on March 15, 2017, the corresponding interests on borrowings ceased capitalization and were charged to finance costs directly since the date of commencement of their commercial operations.

FINANCIAL POSITION

	December 31, 2017 RMB'000	December 31, 2016 RMB'000	Fluctuations increase/ (decrease) RMB'000	Percentage change increase/ (decrease) %
Total assets	359,526,689	287,633,794	71,892,895	25.0
Total liabilities	256,993,552	205,735,121	51,258,431	24.9
Total equity	102,533,137	81,898,673	20,634,464	25.2
Equity attributable to owners of the Company	65,837,675	56,534,701	9,302,974	16.5

CURRENT ASSETS

	December 31, 2017 RMB'000	December 31, 2016 RMB'000	Fluctuations increase/ (decrease) RMB'000	Percentage change increase/ (decrease) %
Inventories ⁽¹⁾	19,738,837	13,137,983	6,600,854	50.2
Amounts due from customers for contract work ⁽²⁾	6,819,200	5,300,838	1,518,362	28.6
Trade and bills receivables ⁽³⁾	6,648,448	5,735,493	912,955	15.9
Prepayments and other receivables ⁽⁴⁾	9,094,120	7,360,943	1,733,177	23.5
Amounts due from related parties	1,619,500	1,625,292	(5,792)	(0.4)
Cash and cash equivalents ⁽⁵⁾	10,315,715	8,456,534	1,859,181	22.0
Other deposits over three months	2,023,000	2,047,000	(24,000)	(1.2)
Other current assets	110,270	160,547	(50,277)	(31.3)
Total current assets	56,369,090	43,824,630	12,544,460	28.6

- (1) The increase in inventories was mainly due to the inclusion of Ningde Nuclear in the Group's consolidated financial statements since January 1, 2017 and the increase in nuclear fuel resulting from the construction progress of the units under construction.
- (2) The increase in amounts due from customers for contract work was primarily due to the increase in outstanding payments of completed contract work from Ningde Second Nuclear, Hongyanhe Nuclear, CGN Huizhou Nuclear Power Co., Ltd. (中廣核惠州核電有限公司) etc. by CGN Engineering.
- (3) The increase in trade and bills receivables was mainly due to the inclusion of Ningde Nuclear in the Group's consolidated financial statements since January 1, 2017, as well as the increase in our subsidiaries' on-grid power generation during the year compared with 2016, with an increase in receivables from grid companies at the end of the period.
- (4) The increase in prepayments and other receivables was mainly due to the inclusion of Ningde Nuclear in the Group's consolidated financial statements since January 1, 2017 and the increase in value-added tax recoverable within one year due to the commencement of commercial operation of new generation units.
- (5) The increase in cash and cash equivalents was mainly due to the Company's receipt of RMB5,000 million from the transfer of 17% equity interest in Yangjiang Nuclear in 2017.

Financial Performance and Analysis

CURRENT LIABILITIES

	December 31, 2017 RMB'000	December 31, 2016 RMB'000	Fluctuations increase/ (decrease) RMB'000	Percentage change increase/ (decrease) %
Trade and other payables ⁽¹⁾	24,211,067	19,294,867	4,916,200	25.5
Amounts due to customers for contract work	499,175	855,926	(356,751)	(41.7)
Amounts due to related parties ⁽²⁾	2,997,414	8,081,680	(5,084,266)	(62.9)
Loans from ultimate holding company	800,000	1,025,500	(225,500)	(22.0)
Loans from fellow subsidiaries ⁽³⁾	1,691,560	3,651,242	(1,959,682)	(53.7)
Loans from an associate	4,405,803	3,945,435	460,368	11.7
Loans from non-controlling shareholders ⁽⁴⁾	1,255,996	—	1,255,996	N/A
Bank borrowings - due within one year ⁽⁵⁾	21,904,038	20,806,759	1,097,279	5.3
Notes payable - due within one year ⁽⁶⁾	1,000,000	5,600,000	(4,600,000)	(82.1)
Other current liabilities	1,889,312	1,906,254	(16,942)	(0.9)
Total current liabilities	60,654,365	65,167,663	(4,513,298)	(6.9)

- (1) The increase in trade and other payables was primarily due to the inclusion of Ningde Nuclear in the Group's consolidated financial statements since January 1, 2017, the increase in receipts in advance from associates, the increase in construction payables to third parties and the increase in operating activities such as purchase of raw materials and acceptance of services.
- (2) The decrease in amounts due to related parties was mainly due to the payment of the remaining amount regarding the acquisition of equity interest in CGN Engineering, Fangchenggang Nuclear and Lufeng Nuclear to CGNPC during the year.
- (3) The decrease of loans from fellow subsidiaries was mainly due to the decrease of loans from 中廣核華盛投資有限公司 CGNPC Huasheng Investment Limited.
- (4) The increase in loans from non-controlling shareholders was due to the fact that the non-controlling shareholder of Taishan Nuclear granted shareholder loans to Taishan Nuclear.
- (5) The increase in bank borrowings due within one year was mainly due to the inclusion of Ningde Nuclear in the Group's consolidated financial statements since January 1, 2017.
- (6) The decrease in notes payable due within one year was mainly due to the repayment of corporate bonds of RMB4,000 million and Taishan Nuclear private placement note (PPN) of RMB1,600 million, as well as notes payable due within one year of RMB1,000 million reclassified from non-current liabilities to current liabilities.

NON-CURRENT ASSETS

	December 31, 2017 RMB'000	December 31, 2016 RMB'000	Fluctuations increase/ (decrease) RMB'000	Percentage change increase/ (decrease) %
Property, plant and equipment ⁽¹⁾	277,283,783	216,509,163	60,774,620	28.1
Intangible assets ⁽²⁾	3,695,173	3,065,535	629,638	20.5
Goodwill ⁽³⁾	419,243	—	419,243	N/A
Interests in associates	8,346,444	7,837,967	508,477	6.5
Interests in joint ventures ⁽⁴⁾	17,187	4,199,132	(4,181,945)	(99.6)
Deferred tax assets	1,551,267	1,687,249	(135,982)	(8.1)
Prepayments and value-added tax recoverable	6,688,555	6,277,564	410,991	6.5
Prepaid lease payments	3,485,679	2,959,611	526,068	17.8
Other non-current assets	1,670,268	1,272,943	397,325	31.2
Total non-current assets	303,157,599	243,809,164	59,348,435	24.3

- (1) The increase in property, plant and equipment was mainly due to the inclusion of Ningde Nuclear in the Group's consolidated financial statements since January 1, 2017 and the Company's ongoing constructions of Yangjiang Nuclear Power Station, Taishan Nuclear Power Station, Fangchengang Nuclear Power Station and other projects.
- (2) The increase in intangible assets was primarily due to the inclusion of Ningde Nuclear in the Group's consolidated financial statements since January 1, 2017, as well as an increase in the R&D expenses conducted by our subsidiaries.
- (3) The increase in goodwill was due to the fact that the Group obtained effective control of Ningde Nuclear on 1 January 2017, assets and liabilities of Ningde Nuclear was remeasured at fair value at the date of acquisition, and goodwill is incurred using the acquisition method.
- (4) The decrease in investment in joint ventures was mainly due to the change of Ningde Nuclear from a joint venture to a subsidiary of the Group since January 1, 2017.

Financial Performance and Analysis

NON-CURRENT LIABILITIES

	December 31, 2017 RMB'000	December 31, 2016 RMB'000	Fluctuations increase/ (decrease) RMB'000	Percentage change increase/ (decrease) %
Borrowings and notes payable ⁽¹⁾	185,626,953	132,475,608	53,151,345	40.1
Provisions ⁽²⁾	3,244,866	2,467,433	777,433	31.5
Loans from an associate	3,130,897	2,989,975	140,922	4.7
Loans from fellow subsidiaries ⁽³⁾	1,750,500	—	1,750,500	N/A
Other non-current liabilities	2,585,971	2,634,442	(48,471)	(1.8)
Total non-current liabilities	196,339,187	140,567,458	55,771,729	39.7

- (1) The increase in borrowings and notes payable was mainly due to the inclusion of Ningde Nuclear in the Group's consolidated financial statements since January 1, 2017 and the increased borrowings resulted from our ongoing constructions of Yangjiang Nuclear Power Station, Taishan Nuclear Power Station and Fangchengang Nuclear Power Station.
- (2) The increase in provisions was mainly due to the increase in provision for nuclear power units decommissioning resulting from the inclusion of Ningde Nuclear in the Group's consolidated financial statements since January 1, 2017 and the commencement of commercial operation of Yangjiang Unit 4 on March 15, 2017.
- (3) The increase in loans from fellow subsidiaries was mainly due to the increase in loans from 中廣核國際融資租賃有限公司 CGNPC International Financial Leasing Co., Ltd. and 深圳招銀白鷺投資合夥企業 Shenzhen Zhaoyinbailu Investment Partnership.

EQUITY ATTRIBUTABLE TO OWNERS OF THE COMPANY

As of December 31, 2017, equity attributable to owners of the Company amounted to RMB65,837.7 million, representing an increase of RMB9,303.0 million or 16.5% as compared with RMB56,534.7 million as of December 31, 2016, primarily due to (i) settlement for the transfer of 17% equity interests in Yangjiang Nuclear in December 2017, which increased equity attributable to owners of the Company by RMB2,549.1 million; (ii) our cash dividend declared in 2017 resulted in a decrease in equity attributable to owners of the Company of RMB2,317.8 million; and (iii) total comprehensive income attributable to owners of the Company amounted to RMB9,061.1 million in 2017.

Assets and Investment

Save for the acquisition, 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, 2017.

INVESTMENT IN PROPERTY, PLANT AND EQUIPMENT

For the year ended December 31, 2017, our investment in property, plant and equipment amounted to approximately RMB18,825.3 million, representing a decrease of RMB3,032.1 million or 13.9% from RMB21,857.4 million in 2016, mainly due to the decrease in capital expenditure arising from the commercial operations of Yangjiang Unit 4 and Fangchenggang Unit 2.

MAJOR INVESTMENTS IN EQUITY

For the year ended December 31, 2017, the Group increased its capital contribution in joint ventures in the sum of RMB498.7 million, of which amounts of RMB379.8 million, RMB63.6 million and RMB55.3 million were made to Hongyanhe Nuclear, Ningde Second Nuclear and CGN Fund Phase I, respectively.

MAJOR ACQUISITION AND DISPOSAL

During the year ended December 31, 2017, Suzhou Nuclear Power Research Institute, a wholly-owned subsidiary of the Company, completed the disposal of 90% equity interest in 南京新蘇熱電有限公司 Nanjing Xinsu Thermoelectricity Co., Ltd., an indirect subsidiary of the Group. Upon completion of the disposal, Nanjing Xinsu Thermoelectricity Co., Ltd. ceased to be a subsidiary of the Group.

On November 30, 2016, the Company and GNIC, a wholly-owned subsidiary of the Company, entered into a conditional equity transfer agreement with 中電核電(陽江)有限公司 CLP Nuclear Power (Yangjiang) Limited to transfer 17% equity interest in Yangjiang Nuclear to CLP Nuclear Power (Yangjiang) Limited. Upon completion of the disposal, Yangjiang Nuclear will remain subsidiary of the Group. As of December 31, 2017, the disposal was completed.

In order to further develop the financing channels for the constructions of the Company's units and improve the capital structure, the Company entered into an investment agreement with 深圳國同清潔能源合夥企業 Shenzhen Guotong Clean Energy Partners Corporation (Limited Partnership) ("Shenzhen Guotong") on December 29, 2017, pursuant to which the Company and Shenzhen Guotong proposed to establish a company to hold 61% equity interest in Fangchenggang Nuclear, a subsidiary of the Company. The Company and Shenzhen Guotong shall hold 60% and 40% equity interest in the company, respectively. Upon completion of the establishment of the company (the company was established on January 10, 2018), both the company and Fangchenggang Nuclear will be the subsidiaries of the Company and their financial results will be consolidated into the consolidated financial statements of the Group.

Save as the disposal projects disclosed above, the Group had no other material acquisition or disposal for the year ended December 31, 2017.

Assets and Investment

USE OF PROCEEDS

The Company issued 10,148,750,000 H shares by way of global offering in December 2014 with net proceeds of RMB21,603.5 million (in equivalent) from the offering after deducting various issuance costs. As of December 31, 2017, the Company had used RMB20,294.6 million of the net proceeds for the purposes as set out in the Prospectus, representing 93.9% of the net proceeds from the offering.

Item	Movements RMB'000
Net proceeds from the Listing	21,603,535
Less: Proceeds used	20,294,576
Among which:	
Acquisition of 60% of the equity interests in Taishan Investment and 12.5% of the equity interests in Taishan Nuclear	9,700,196
Capital expenditure for NPPs under construction	8,714,300
Research and development activities	546,680
Replenishment of working capital	1,333,400
Proceeds unused as at December 31, 2017	1,308,959

The remaining unused proceeds have been intended to be used mainly for R&D activities and overseas market exploration. The proceeds intended to be used for R&D activities are being progressively used according to the annual R&D plan of the Company. As the Company has not carried out any overseas projects, the proceeds intended to be used for overseas market exploration remain unused.

CONTINGENCIES

EXTERNAL GUARANTEES

The Group confirmed that for the year ended December 31, 2017, the Group had not provided any external guarantee.

PLEDGE OF ASSETS

As of December 31, 2017, the Group's assets (mainly property, plant and equipment) of RMB19,240.3 million in carrying value were pledged to banks and related parties to secure loans for the Group. As of December 31, 2016, the carrying value of the Group's assets pledged to banks and related parties was RMB23,175.4 million.

As of December 31, 2017 and 2016, the electricity tariff collection rights of Ling'ao Nuclear, Lingdong Nuclear, Yangjiang Nuclear, Ningde Nuclear, Fangchenggang Nuclear and Taishan Nuclear were pledged to secure the banking facilities, loans from banks and related parties.

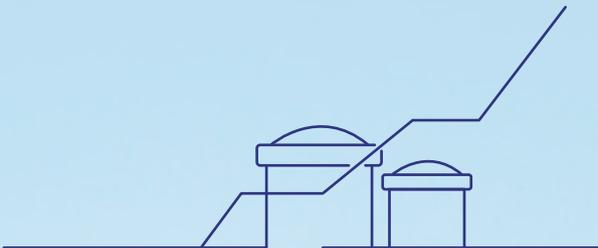
LEGAL PROCEEDINGS

For the year ended December 31, 2017, neither was there significant litigation, nor was the Group 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 investment schedules, continue to fund the technology improvement in NPPs in operation, make continuous investment in the R&D and innovation of technologies, and fund the acquisitions of contingent assets in 2018. 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 between the Company and CGNPC, thereby laying a solid foundation for the Company's future development.





Business Performance and Outlook

- 34 Industry Overview
 - 36 Business Performance
and Analysis
 - 53 Future Outlook
-

Industry Overview

On October 18, 2017, the 19th National Congress of the Communist Party of China (the “**19th National Congress**”) was convened. Mr. Xi Jinping delivered a report to the General Assembly on behalf of the 18th Communist Party of China Central Committee (the “**19th Congress Report**”). In the 19th Congress Report, it was proposed to speed up green development, expand the clean energy industry, so as to build a clean, low-carbon, safe and efficient energy system. After the 19th National Congress was held, the ministries and commissions of the State as well as the local governments acted swiftly to deploy and implement the principles of the 19th National Congress.

In the Central Economic Work Conference held on December 18, 2017, it was also proposed that China should win tough battles over pollution prevention and control in the coming three years. At the 2018 National Energy Work Conference held on December 26, 2017, it was proposed that efforts should be made to build a clean and low-carbon green industrial system, which could effectively implement clean low-carbon, safe and efficient requirements of energy development in all fields and the entire process. This would then promote China to achieve new progress in deploying high-quality development with respect to energy.

The Chinese government always adheres to the principles of safe and efficient development in nuclear power. There had been no change in the mid to long-term targets on the development of nuclear power that had been released in recent years. In our opinion, as a safe, stable and clean source of energy, nuclear power can play important roles in building a clean and low-carbon energy system and pollution prevention and controls in China. The nuclear power industry is still in its stage of strategic development. In February 2017, the National Development and Reform Commission (the “**NDRC**”) and the National Energy Administration jointly released the Provisional Measures for Nuclear Power Offtake under the Condition of Securing Nuclear Safety, which ensured the basic principles of safeguarding nuclear power consumption as “ensuring safety, priority access to the grid, guaranteed volume, and balance of interests”. This had provided policy guarantee to the consumption of power generated by the nuclear power units.

In 2017, the economy of China grew steadily and was better than expected. According to the data released by the National Bureau of Statistics on January 18, 2018, gross domestic product (GDP) increased by 6.9% over the same period of previous year, an increase of 0.2 percentage points over the same period of previous year. The rebound in economic growth brought about a rebound in the growth of electricity consumption in the whole society. According to the “Analysis and Forecast Report on the Situation of Electricity Supply and Demand in China 2017-2018” as prepared by the China Electricity Council, the electricity consumption in China increased by 6.6% in 2017 over the same period of previous year, an increase of 1.6 percentage points over the same period of previous year. At the same time, the scale of China’s installed power generation capacity increased by 7.6% as compared with the same period of previous year, which was 0.6 percentage points lower than the same period of previous year. As the increase in installed capacity of power generation in China was still higher than the increase of electricity consumption in China, the supply and demand of power throughout the country was still at ease. With the steady development of China’s economy, we believe that it will take some time to change the slight oversupply condition. However, the oversupply condition is set to be gradually improving across the country starting from 2018.

In 2017, the national average utilization hours of nuclear power was 7,108 hours, representing a year-on-year increase of 48 hours. Due to the low proportion of nuclear power in the energy structure, and leveraging on the national policy on support to clean energy, the utilization rates of nuclear power maintained a relatively high level.

	Ratio of installed capacity by type of energy (%)		Ratio of generation capacity by type of energy (%)		Average utilization hours (hours)	
	2017	2016	2017	2016	2017	2016
Nuclear power	2.0	2.0	3.9	3.5	7,108	7,060
Thermal power	62.2	64.2	70.9	71.8	4,209	4,186
Hydropower	19.2	20.0	18.6	19.5	3,579	3,619
Wind power	9.2	9.0	4.8	4.0	1,948	1,745

Note: Data from "2017 National Power Industry Statistics List" of China Electricity Council.

In 2017, with the further reforms in the national power system, the trading mechanisms of electricity market were further improved. The share of electricity traded in various markets further expanded. Except for Guangdong Province, all of our nuclear power bases in other provinces participated in market transactions at the local market. The volume of electricity traded in the market increased as compared with 2016. With the orderly reform of the national power system, the original planned power consumption mode was gradually liberalized. The general trend is that the share of market transactions in the electricity market is expected to be gradually expanding.

Business Performance and Analysis

As of the end of 2017, we managed 20 nuclear power generating units in operation and 8 nuclear power generating units under construction. During the year, we had 1 new nuclear power generating unit commenced commercial operation, namely Yangjiang Unit 4.

As of December 31, 2017, 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, 2017	As at December 31, 2016	Growth rate
Nuclear power generating units in operation	Number	20	19	5.26%
	Capacity	21,470 MW	20,384 MW	5.33%
Nuclear power generating units under construction	Number	8	9	-11.11%
	Capacity	10,270 MW	11,356 MW	-9.56%

We will introduce and analyse the Company's business performance in 2017 in respect of safety management, generating units in operation, generating units under construction, sales of electricity and lean management.

Safety Management

We place nuclear safety at our top priority. We always adhere to the principles of "Nuclear Safety is Paramount" and "Safety First". These principles apply to various stages of 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. The Company has set up the Nuclear Safety Committee of the Board, the Nuclear Safety Committee of the Company and other organizations to discuss and make decisions in relation to the Company's important nuclear safety issues. In 2017, the Company's safety management system operated smoothly and the safety management level of the Company increased.

As the primary law governing the basic system of safety management, the Nuclear Safety Law was passed on September 1, 2017, which became effective on January 1, 2018. The Nuclear Safety Law implemented the overall concept of national security and established a standard system of high and strict nuclear safety. This provided a solid legal guarantee for the long term safety and healthy development of nuclear energy. Since the enactment of the Nuclear Safety Law, a variety of learning activities had been organized within the Group. The Company has always insisted that nuclear safety is the bedrock of the nuclear industry for many years. Subsequently we will strictly adhere to the requirements of the Nuclear Safety Law. We will continuously improve the nuclear safety management system, and to enhance the standards and capabilities of nuclear safety management. This will ensure the safe and stable operation of the nuclear power generation units and the safe construction of nuclear power generation units under construction.

Emphasizing the building of nuclear safety culture

The Company always places great emphasis to establish the culture of nuclear safety. We are always committed to adhere to the principles of “Nuclear Safety is Paramount”, “Safety First, Quality Foremost, Pursuing Excellence”, “Doing Things Right in One Go”, “Compliance with Procedures, Honesty and Transparency, Constant Improvement” and “Serving as a Model, Take the Lead and Being People-based” to jointly promote the continuous enhancement of the Company’s safety management level.

We continued to consolidate the roles of leaders. On April 20, 2017, the Company organized the “Forum on Nuclear Safety Management Enhancement” with the topic of “practically strengthening (nuclear) safety management and thoroughly eliminating (nuclear) safety risks - putting safety truly in place”. During the forum, responsible persons of departments of the Company and responsible persons of subsidiaries and associates of the Group reviewed the typical nuclear incidents which took place inside and outside of the Group. By focusing on “Enhancing Safety Management of Nuclear Power”, they engaged into in-depth discussions, and deeply reflected on the Group’s problems and shortcomings in (nuclear) safety management. This had come to a consensus on the objectives of nuclear safety management in future.

In 2016, the Company launched the “On-site Management” activities, requiring the management of each level to go into the site of working level to stay close with front-line staff and timely identify and solve the management problems at the working level so as to enhance work efficiency and promote the Company’s safety management level. In 2017, the Company continued to carry out this activity. Under the leadership of managers at all levels, the awareness of nuclear safety and culture among all staff were strengthened. Adherence to “Compliance with Procedures” is one of the principles of the Company’s nuclear safety culture. Through analysis, we found out employees’ failure to strictly adhere to the procedures, was one of the issues for onsite safety management. We continued to carry out special activities on the theme of “Observing Nuclear Safety from Compliance of Procedures”, which promoted employees at all levels to strengthen their reverence towards the procedures, and to form the atmosphere of strictly adhering to the procedures so as to continuously enhance the safety culture awareness among the staff.

In addition, we conducted a routine precautionary education campaign on nuclear safety culture every year, so as to enhance the safety culture awareness of all employees.



On-site Management: Inspection of Taishan Nuclear Power Station by Mr. Gao Ligang, the President

Business Performance and Analysis

Enhancing Internal and External Supervision

Within the company, we have set up a three-level internal safety supervision system. The first level represents the on-site safety supervision team led by NPP safety engineers which guarantees the effectiveness of safety of the NPPs' daily operation activities. The second level represents the safety management body whose fundamental duty is safety quality management for NPPs. The body is to safeguard and supervise the organizational effectiveness of the safety management system. The third level represents the nuclear safety supervision assessment center serving across the member companies which independently performs safety supervision over and makes safety assessment on each of the NPPs.

In 2017, we continued to dedicate our efforts in improving the system and enhanced our capabilities. Based on external feedback and as combined with practices of the Company, we revised the relevant mechanisms of nuclear safety management and established an independent nuclear safety supervision program to further standardize the independent supervision of nuclear safety. Training courses for the development of capabilities in supervisory personnel for nuclear safety as well as further training courses were developed. The rationale, methodologies and technical capabilities of the independent supervisory staff were thus enhanced.

We continuously adhered to the strategy of synchronizing the work of nuclear safety supervising officers and operation personnel to ensure the presence of 24-hour nuclear safety supervision and conduct real time monitoring of nuclear safety status of generating units, thereby effectively ensuring the safety operation of generating units.

Apart from internal supervision, we also receive independent supervision performed by the National Nuclear Safety Administration (the "NNSA") and other authorities. In 2017, we received an aggregate of 14 regular safety inspections from the NNSA and all results of which complied with the regulatory requirements. Details of the major inspection are as follows:

Base or NPP	Major inspection item	Total number of inspections
Daya Bay Base (including Daya Bay Nuclear Power Station, Ling'ao Nuclear Power Station and Lingdong Nuclear Power Station)	The control point nuclear safety inspection before criticality after the outage for generating units	4
Yangjiang Nuclear Power Station	Nuclear safety inspection at critical control point after unit outage, nuclear safety inspection at 90% of rated power (thermal) control point of Yangjiang Unit 4	4
Fangchenggang Nuclear Power Station	Nuclear safety inspection before critical control point after unit outage	2
Ningde Nuclear Power Station	Nuclear safety inspection before critical control point after unit outage	3
Hongyanhe Nuclear Power Station	Hongyanhe Units 1-4 quality assurance nuclear safety inspection	1

In 2017, apart from the routine inspection by the NNSA, we also received nuclear safety inspection by external regulatory organizations such as the NNSA and the Nuclear and Radiation Safety Supervision Stations from time to time and all results of which complied with the regulatory requirements.

The Chinese government has placed much emphasis on the development of nuclear power safety, To further strengthen the safety management of nuclear power, the Four Ministries and Commissions jointly organized the special campaign (the “**Special Campaign**”) named “Year of Enhancing Nuclear Safety Management” in 2017. Such Special Campaign was divided into three phases, namely, self-examination by the enterprises, supervision and inspection by the departments as well as improvement and conclusion. The scope of inspection included existing nuclear power units in operation and under construction throughout the country, including 13 nuclear power bases with 56 units. On the basis of honesty and transparency, we humbly learnt and positively cooperated with the inspection team for conducting examination work. Inspection team commenced inspection from the emergency defense, engineering management, quality management, operational specifications, nuclear and radiation safety. At the same time, the inspection team also raised the issues for improvement. We had developed specific rectification plans and tracked the implementation.

In order to continuously improve our standard of nuclear safety management, we regularly receive and invite international peers to conduct safety assessments on our NPPs. In 2017, WANO conducted peer reviews for Hongyanhe Nuclear, Yangjiang Nuclear, Ningde Nuclear and Taishan Nuclear. During the review period, we proactively cooperated with experts with an open mind. We paid attention to the problems found and the analysis on their deep-rooted reasons, and sought for directions to improve nuclear safety management. At the same time, in view of the issues found in the assessment and the areas for improvement, we formulated a detailed rectification plan and tracked its implementation.

Business Performance and Analysis

Establishing a full-cycle feedback system

The feedback system of NPPs is an important component of the management of NPPs, which can effectively prevent the recurrence of the events and promote continuous improvement. The Company actively promoted the establishment of full-cycle feedback system covering the design, construction, operation and decommissioning phases and improved the relevant systems.

The Company has established a transparent event reporting system, requiring all staff to follow the Company's internal management system and actively report any deviation during daily operation. Therefore, deviations and hazards can be identified earlier and handled in a timely manner, thereby events which may have a material effect on nuclear safety can be prevented.

In the short run, isolated equipment defects in industrial systems are subject to contingency, and so do operational events in the context of nuclear power station. The new operating units need certain time to identify the possible deviations and potential problems. The Company makes judgment on the level of operational event according to the International Nuclear and Radiological Event Scale (《國際核事件分級表》) (the "INES") set by the IAEA. In respect of the operational event occurred, we will immediately analyze, discuss and share the experience among all the NPPs in a timely manner. In respect of abnormality happened in the past and deviations identified, the Company would analyse again according to the principles of the internal supervision and selfinspection activities. In respect of deviations and incidents, we adhere to the principle of "Honesty and Transparency" to report to the national regulatory authority, enhance analysis and reflection on the reasons, conduct feedback practice and safety culture re-education among all the staff of the Group to prevent recurrence of the incidents in other generating units and timely revise and refine our policies and procedures.

According to the INES set by IAEA, the NPPs we operated and managed have maintained our all-time good safety record of no nuclear event at level 2 or above in 2017.

In 2017, the number of operational events of our nuclear power generating units in operation are as follows:

	Number of Operational Events	
	As of December 31, 2017	As of December 31, 2016
Base or Nuclear Power Station		
Daya Bay Base (including Daya Bay Nuclear Power Station, Ling'ao Nuclear Power Station and Lingdong Nuclear Power Station)	0	6
Yangjiang Nuclear Power Station	5	7
Fangchenggang Nuclear Power Station	2	3
Ningde Nuclear Power Station	7	17
Hongyanhe Nuclear Power Station	2	5

According to the INES of the IAEA, during the year ended December 31, 2017, no operational events at level 1 or above occurred in the 20 nuclear generating units we operated and managed, and a total of 16 deviations without safety significance (below scale/Level 0) occurred.

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 referred to as "incident," while Level 4 to Level 7 are referred to as "accidents." Events without safety significance are classified as "below scale/Level 0".

Optimising nuclear emergency response system

According to the Company's management strategy, we have established a complete nuclear emergency response and handling system. Meanwhile, to ensure effective operation of the system, we conduct training and emergency drills on different scales every year as planned to ensure quick responses to any emergency. Meanwhile, to effectively ensure rapid handling of emergency in NPPs, we consolidate our resources for emergency in each nuclear power base of the Group to achieve emergency support among the bases.

In 2017, we continued to optimize and improve the nuclear emergency response system, and further implemented various emergency to improve and enhance emergency system construction, emergency infrastructure construction, emergency response capacity maintenance, emergency science education and publicity.

Each year, we tested the effectiveness of our nuclear emergency and response system through different levels of emergency exercises. As of the end of 2017, we conducted 268 emergency drills. For example: on December 21, 2017, we held the "Annual On-site Nuclear Accident Comprehensive Emergency Response Exercise for Yangjiang Nuclear Power Plant 2017" jointly organized by the Company and Yangjiang Nuclear. In addition to simulating accidents occurred at the generating unit, the exercise also included scenarios such as operations proposed for improvement actions after the Fukushima nuclear accident (water injection by mobile pump), monitoring of marine environment and preventive evacuation of non-emergency responders. Competent authorities of state nuclear safety regulation, Guangdong Provincial Environmental Protection Agency, Yangjiang City Environmental Protection Agency observed the exercise onsite. This exercise comprehensively tested the preparation and responsiveness of Yangjiang Nuclear. The purpose of the exercise had been met and had been recognized by external regulatory agencies.

Business Performance and Analysis

Nuclear Power Generating Units in Operation

In 2017, all nuclear power generating units in operation managed by us maintained safe and stable operation, including Yangjiang Unit 4 which has commenced commercial operation, with a total annual on-grid power generation of 137,734.87 GWh, representing a year-on-year increase of 19.16% as compared with that of 2016.

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, Ningde Nuclear Power Station and Fangchenggang Nuclear Power Station) amounted to 115,872.70 GWh, representing a year-on-year increase of 18.37% as compared with that of 2016. The total annual on-grid power generation from NPPs managed by our associates (Hongyanhe Nuclear Power Station) amounted to 21,862.17 GWh, representing a year-on-year increase of 23.58% as compared with that of 2016.

Name of NPP	On-grid power generation from January to December 2017 (GWh)	On-grid power generation from January to December 2016 (GWh)	Change rate for the same period (%)
<i>From subsidiaries</i>	115,872.70	97,892.54	18.37
Daya Bay Nuclear Power Station	15,720.17	14,526.04	8.22
Ling'ao Nuclear Power Station	14,741.28	15,222.19	-3.16
Lingdong Nuclear Power Station	15,197.19	15,210.66	-0.09
Ningde Nuclear Power Station ¹	28,469.37	22,336.44	27.46
Yangjiang Nuclear Power Station ²	29,962.65	21,583.11	38.82
Fangchenggang Nuclear Power Station ³	11,782.05	9,014.11	30.71
<i>From associates</i>			
Hongyanhe Nuclear Power Station ⁴	21,862.17	17,691.03	23.58
Subsidiaries and associates, total	137,734.87	115,583.57	19.16

Notes:

1. Ningde Nuclear has been changed from a joint venture of the Group to a subsidiary of the Group since January 1, 2017. Ningde Nuclear owns Ningde Nuclear Power Station. For the purpose of business comparison, the operating data of Ningde Nuclear for the corresponding period in 2016 is considered as the data of a subsidiary. On-grid power generation of Ningde Nuclear Power Station increased by 27.46% for the same period. Ningde Unit 4 commenced commercial operation on July 21, 2016. For details of other factors affecting the on-grid power generation, please refer to the analysis in the section headed "Operation Performance".
2. On-grid power generation of Yangjiang Nuclear Power Station increased by 38.82% for the same period. Yangjiang Unit 4 commenced commercial operation on March 15, 2017. For details of other factors affecting the on-grid power generation, please refer to the analysis in the section headed "Operation Performance".
3. On-grid power generation of Fangchenggang Nuclear Power Station increased by 30.71% for the same period. Fangchenggang Unit 2 commenced commercial operation on October 1, 2016.
4. On-grid power generation of Hongyanhe Nuclear Power Station increased by 23.58% for the same period. Hongyanhe Unit 4 commenced commercial operation on June 8, 2016.

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 subject to 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 implemented 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 temporary operation at reduced load or shutdown resulting from the demand and supply conditions of the electricity market.



On-site inspection and maintenance by engineers

Business Performance and Analysis

In 2017, we had 20 nuclear power generating units in operation, with an average capacity factor of 89.59%, an average load factor of 79.31% and average utilization hours of 6,906 hours, as compared with 90.31%, 77.45% and 6,673 hours of the 18 nuclear power generating units (excluding Fangchenggang Unit 2) in operation in 2016. The details of the operation performance of generating units we operated and managed in 2017 are as follows:

Nuclear power station	Capacity factor (%)		Load factor (%)		Utilization hours (hours)	
	2017	2016	2017	2016	2017	2016
<i>From subsidiaries</i>						
Daya Bay Unit 1 ¹	99.98	86.58	101.23	87.48	8,869	7,685
Daya Bay Unit 2 ²	88.74	87.42	89.41	88.05	7,834	7,736
Ling'ao Unit 1 ³	89.15	99.81	84.59	99.11	7,408	8,703
Ling'ao Unit 2 ⁴	96.32	88.65	93.22	83.94	8,164	7,371
Lingdong Unit 1 ⁵	86.99	91.62	84.19	89.23	7,369	7,831
Lingdong Unit 2 ⁶	91.33	87.84	85.97	80.72	7,525	7,084
Yangjiang Unit 1 ⁷	99.61	81.56	97.10	79.16	8,506	6,953
Yangjiang Unit 2 ⁸	87.97	77.68	84.17	77.29	7,373	6,789
Yangjiang Unit 3 ⁹	86.49	91.24	83.00	85.11	7,271	7,476
		Under		Under		Under
Yangjiang Unit 4 ¹⁰	90.00	Construction	89.41	Construction	7,832	Construction
Fangchenggang Unit 1 ¹¹	76.19	99.02	59.05	81.21	5,172	7,133
Fangchenggang Unit 2 ¹²	80.70	—	74.25	84.13	6,505	7,389
Ningde Unit 1 ¹³	83.66	98.13	79.86	76.44	6,996	6,714
Ningde Unit 2 ¹⁴	98.80	86.38	91.11	65.46	7,981	5,750
Ningde Unit 3 ¹⁵	95.62	80.08	88.20	68.91	7,726	6,053
Ningde Unit 4 ¹⁶	84.38	99.98	60.63	92.47	5,311	8,122
<i>From associates</i>						
Hongyanhe Unit 1 ¹⁷	88.92	87.19	79.41	66.36	6,957	5,827
Hongyanhe Unit 2 ¹⁸	98.08	87.49	63.77	57.56	5,586	5,056
Hongyanhe Unit 3 ¹⁹	83.07	94.90	61.46	59.90	5,384	5,262
Hongyanhe Unit 4 ²⁰	85.76	99.98	36.14	49.02	3,166	1,926

Notes:

1. Daya Bay Unit 1 did not conduct any refuelling outage in 2017 and completed a refuelling outage in 2016.
2. Daya Bay Unit 2 completed a refuelling outage in 2017 and refuelling outage duration is shorter in 2017 compared with 2016.
3. Ling'ao Unit 1 completed a refuelling outage in 2017 and did not conduct any refuelling outage in 2016.
4. Ling'ao Unit 2 did not conduct any refuelling outage in 2017 and completed a refuelling outage in 2016.
5. Lingdong Unit 1 completed a refuelling outage in 2017 and refuelling outage duration is longer in 2017 compared with 2016.
6. Lingdong Unit 2 completed a refuelling outage in 2017 and refuelling outage duration is shorter in 2017 compared with 2016.
7. Yangjiang Unit 1 did not conduct any refuelling outage in 2017 and completed a refuelling outage in 2016.
8. Yangjiang Unit 2 completed a refuelling outage in 2017 and refuelling outage duration is shorter in 2017 compared with 2016.
9. Yangjiang Unit 3 completed the initial outage after commencement of operation in 2017 and its duration was longer, being similar to that of a 10-year outage.
10. Yangjiang Unit 4 commenced its commercial operation on March 15, 2017.
11. Fanggangcheng Unit 1 completed the initial outage after commencement of operation in 2017 and its duration was longer, being similar to that of a 10-year outage.
12. Fanggangcheng Unit 2 completed the initial outage after commencement of operation in 2017 and its duration was longer, being similar to that of a 10-year outage. Fangchenggang Unit 2 commenced its commercial operation on October 1, 2016. According to the requirements for indicators calculation by WANO, since Fangchenggang Unit 2 did not operate for one quarter, it was excluded from the indicators (such as capacity factor) calculation by WANO in 2016 (for example, capacity factor).
13. Ningde Unit 1 completed a refuelling outage in 2017 and did not conduct any refuelling outage in 2016.
14. Ningde Unit 2 did not conduct any refuelling outage in 2017 and completed a refuelling outage in 2016.
15. Ningde Unit 3 conducted a refuelling outage in 2017 and completed in January 2018. Refuelling outage duration is shorter in 2017 compared with 2016.
16. Ningde Unit 4 completed the initial outage after commencement of operation in 2017 and its duration was longer, being similar to that of a 10-year outage.
17. Hongyanhe Unit 1 completed a refuelling outage in 2017 and refuelling outage duration is flat in 2017 compared with 2016.
18. Hongyanhe Unit 2 did not conduct any new refuelling outage in 2017. The refuelling outages implemented in 2016 were completed in January 2017 and refuelling outage duration is shorter in 2017 compared with 2016.
19. Hongyanhe Unit 3 completed the initial outage after commencement of operation in 2017 and its duration was longer, being similar to that of a 10-year outage.
20. Hongyanhe Unit 4 commenced its commercial operation on June 8, 2016.

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. Taking the safety and economic considerations for NPPs into account, nuclear power operators often make use of the refuelling period to intensively conduct preventive and corrective maintenance projects as well as various modifications projects, and this is usually referred to as refuelling outage by NPPs. The refuelling intervals of our NPPs are generally 12 to 18 months. According to the technical requirements for the operation of NPPs, inspection, testing and maintenance for major equipment are required every ten years. Such activities will be conducted during the refuelling period of generating units, and this is usually referred to as 10-year outage by NPPs. In addition to the refuelling outage and 10-year outage, the refuelling outage of new generating units conducted in the next year after commencement of operation is usually referred to as initial outage.

During the refuelling outage period, we carry out inspection, maintenance and modifications for equipment with selectivity based on the requirements of nuclear power station preventive maintenance guidelines, in-service inspection guidelines, requirements on operation technology specification as well as the experience on the operation of generating units to secure the safety of the units, improve the operating performance of the equipment, and ensure that the units would maintain good operating conditions in the next cycle according to the design requirements.

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 first and 10-year outage, resulting in a longer inspection period compared to that of regular refuelling outage. 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 2017, we successfully conducted 13 refuelling outages, excluding the refuelling outages conducted from 2016 over to 2017, and completed 12 refuelling outages during the year including 5 initial outages. Another one refuelling outage conducted over to the next year was completed in January 2018.

In 2017, the total aggregate number of calendar days for refuelling outages was approximately 600 days, including calendar days over to the next year.

Note: In 2016, we carried out a total of 12 refuelling outages for the 19 units in operation managed by us, including 2 first outages, each of which is equivalent to a 10-year outage, and the total number of calendar days for refuelling outages was approximately 575 days.

We continue to implement benchmarking with international counterparts. When compared with the one-year benchmark value of 12 performance indicators for the PWR set by WANO in 2016, among a total of 240 WANO performance indicators of our 20 nuclear power generating units in operation, 177 indicators (73.75%) achieved the world’s top 1/4 level and 164 indicators (68.33%) achieved the world’s top 1/10 level.

Note: For the same period in last year, among our 18 nuclear power generating units in operation (excluding Fangchenggang Unit 2), 72.2% of the indicators achieved the world’s top 1/4 level performance, and 63.9% of the indicators achieved the world’s top 1/10 level.

Environmental Performance

We continued to improve radioactive waste management, optimize emissions discharge process and strictly comply with emission control standards. In 2017, the radioactive waste management of the 20 generating units in operation managed by us has strictly complied with the national laws and regulations, and has met the standards of the relevant technical specifications.

The following table sets forth the amounts and percentages of the various types of radioactive waste discharged at the NPPs for the period indicated as a percentage of the national standards. The amounts of all of the radioactive substances discharged by all of our NPPs were below the applicable PRC 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		Hongyanhe Nuclear Power Station	
	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016
Discharged liquid radioactive waste (radionuclides other than tritium) as a percentage of the national standards	0.47%	0.170%	0.38%	0.490%	0.78%	0.090%	0.38%	0.324%	0.22%	0.227%
Discharged gas radioactive waste (inert gases) as a percentage of the national standards	0.44%	0.142%	0.30%	0.350%	0.39%	0.260%	0.51%	0.578%	0.15%	0.176%
Solid radioactive waste (m ³)	276.4	180.4	42.8	21.2	101.3	12.9	129.6	183.6	196.8	114.4
Results of environmental monitoring	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal

Note: The main reason for changes in the data: the refuelling outage plan is different for every unit, maintenance projects are different, Yangjiang Unit 4 was put into commercial operation in 2017.

The Ministry of Environmental Protection continuously monitored the air-absorbed rates in the periphery of our nuclear power generating units in operation in China. 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 42.56 million tons of standard coal consumption, approximately 111.29 million tons of CO₂ emissions, with an equivalent effect of planting a forest of 0.31 million hectares.

Business Performance and Analysis

Nuclear Power Generating Units under Construction

The quality of NPPs under construction is important for the safe and efficient operations of NPPs after commencement of operation. We meticulously organize project construction in strict compliance with the requirements of relevant laws and regulations. For all the major construction milestones being required to pass the inspection of the NNSA, we would enter into the next phase of work only after passing the inspection of the NNSA which confirmed our full compliance with the requirements.

As of December 31, 2017, among eight nuclear power generating units we construct, 2 were in the commissioning phase, 4 were in the equipment installation phase and 2 were in the civil construction phase.

We control, supervise and manage aspects including the safety, quality, progress, investment, technology and environment of our construction projects, so as to ensure that the projects under construction comply 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 ¹	Equipment Installation Phase ²	Commissioning Phase ³	Grid Connection Phase ⁴	Expected Date of Commencement of Operation
<i>From subsidiaries</i>					
Yangjiang Unit 5			√		Second half of 2018
Yangjiang Unit 6		√			Second half of 2019
Taishan Unit 1			√		2018
Taishan Unit 2		√			2019
Fangchenggang Unit 3	√				2022
Fangchenggang Unit 4	√				2022
<i>From associates</i>					
Hongyanhe Unit 5		√			Second half of 2020
Hongyanhe Unit 6		√			2021

Notes:

- ¹ "Civil construction" refers to activities within the construction phase, particularly the construction of various buildings and structures in accordance with the applicable blueprints.
- ² "Equipment installation" refers to the entire process of placing and installing equipment in right positions and equipment integration during the construction phase.
- ³ "Commissioning" refers to the process of operating the installed systems and equipment and confirming whether their performance fulfils the requirements of their design and the applicable standards.
- ⁴ "Grid connection" refers to the connection of a power generating unit's electricity transmission circuit to the electricity grid, and indicates that the power generating unit has the ability to transmit electricity from its internal systems.

As the date of commencement of operation may be affected by various factors including, among others, delivery delays, increase in the cost of key equipment and materials, delay in obtaining regulatory approvals, permits or licenses, unexpected engineering, environmental or geological problems, change of localisation ratio as well as the implementation of additional PRC regulatory and safety requirements for nuclear safety, the actual date of commencement of operation may be different from such expected date. We will disclose updated information pursuant to the relevant requirements from time to time.

Taishan Unit 1 has become the first EPR reactor in the world. During the construction of Taishan Nuclear project, Taishan Nuclear has to conduct more experimental verifications in respect of design and equipment, which accordingly requires longer engineering construction time. Taishan Nuclear conducted a comprehensive evaluation on subsequent engineering construction plan and relevant risks and, after due consideration, decided to adjust the construction plan of such project. Accordingly, the expected commercial operation of Taishan Unit 1 and Taishan Unit 2 will commence in 2018 and 2019, respectively.

Currently, Taishan Unit 1 is in the commissioning phase, and Unit 2 is in the equipment installation phase. Taishan Unit 1 has completed the hot functional test as of December 31, 2017, the results of which fulfilled the design criteria. Taishan Unit 2 is in the peak phase of equipment installation. The system handover and commissioning are being carried out in an orderly manner.

Note: The hot functional test is the last overall performance testing before the first loading of nuclear fuel. The test covers the whole pressure and temperature range for reactors from halt to normal operation. Testing on every actual condition is carried out to test the functioning and responsiveness of the main system and equipment with regular testing and operation procedures.

The remaining units under construction of the Company are under steady progress as planned, and meet the regulatory requirements of safety and quality.

Business Performance and Analysis

Sales of Electricity

Over 90% 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 2017, the on-grid power generation of our subsidiaries was 115,872.70 GWh and the sales revenue of electricity was RMB41,543.2 million, representing 91.1% of our total revenue for the year.

In 2017, the slight oversupply of power in China still subsisted. The demand for electricity consumption in some provinces where our nuclear power generating units are located still grew slowly. In response to the demand from the power grid, some of the generating units commenced temporary load reduction or temporary shutdown. Pursuant to the Provisional Measures for Nuclear Power Offtake under the Condition of Securing Nuclear Safety, we actively communicated with the relevant state departments, local governments, power grids and other units to promote the implementation of the requirements for the safe consumption of nuclear power in all regions.

In the face of complex power sales situation, the Company continued to adopt the power sales strategy of "striving for more shares of planned on-grid power generation and striving for better market power generation and power tariff". Under the co-ordination of the Company, all nuclear power bases shall adopt appropriate measures within the scope of their authorization in accordance with the actual of power supply and demand conditions in different regions.

With the further reforms of the national power system, in 2017, with the exception of Guangdong's nuclear power units which are not participating in the market-based power generation, the proportion of nuclear power units participating in the market-based electricity transactions in other provinces and autonomous regions all increased. For example, in Guangxi, where there was plentiful water supply in 2017, hydropower was abundant. Volume of electricity transactions participated by our Fangchenggang nuclear power units in market transactions increased as compared with last year. The installed capacity of nuclear power in Fujian Province, where Ningde Nuclear Power is located, increased as compared with 2016. However, the planned electricity consumption indicators as a whole remained flat when compared with the same period of last year, the volume of electricity traded in the market increased remarkably. In the face of complex power market situation, the Company and the nuclear power bases devoted their efforts jointly to strategically arrange the participation of electricity market transactions. For example, at the beginning of 2017, Fangchenggang Nuclear conducted an analysis of the electricity market and determined that the volume and tariff for most market based power. Ningde Nuclear utilized the opportunities of exporting power outside the region, and expanded electricity sales channels to improve on grid volume of the units. In 2017, we achieved the market-based power output of 19,878.99 GWh, with a certain improvement in unit utilization rate, whilst the average electricity tariff on some part of the electricity consumption was better than that of 2016.

Based on the analysis of the national economy and industry conditions, we believed that in 2018 there would not be much change to the slight oversupply condition in China. The electricity market situation in the province where nuclear power is located also would not change significantly. We will promote the implementation of the Provisional Measures for Nuclear Power Offtake under the Condition of Securing Nuclear Safety. At the same time, we still need to actively coordinate with the arrangements made by local governments in energy structure adjustment and economic development according to the actual conditions in various regions, so as to participate in the electricity market trading in a reasonable way and strive for more on grid electricity. After communication and coordination with the relevant departments of Guangdong Provincial Government, in 2018, our NPPs in Guangdong Province will not directly participate in the electricity market trading. Under the premise of ensuring the safety of the power grid and NPP, we will strive to generate electricity according to the capacity of the units.

We pay close attention to the on-grid tariffs of commercial units. In July 2017, according to the relevant notice of Fujian Price Bureau, the on-grid electricity tariff of Ningde Units 3 and 4 were finally verified as RMB0.4055/kWh (tax included) and RMB0.3717/kWh (tax included) effective from the date the respective units commence commercial operation. In accordance with the Notice issued by the Price Bureau of Guangxi Zhuang Autonomous Region in August 2017, the on-grid electricity tariff of Fangchenggang Units 1 and 2 was changed from RMB 0.414/kWh (tax included) to RMB 0.4207/kWh (tax included). The change of tariff for Fangchenggang Nuclear became effective from July 1, 2017.

In 2017, except for Ningde Units 3 and 4, and Fangchenggang Units 1 and 2, the planned on-grid tariff (tax included) of other nuclear power units in operation remained unchanged. As a clean and stable energy source, we believe that the on-grid tariff of nuclear power will remain stable and conducive to the development of the nation's clean energy.

As of December 31, 2017, the on-grid tariffs (tax included) of the planned electricity sales of our nuclear power generating units in operation are as follows:

Nuclear Power Generating Units	Clients	On-grid Tariffs (tax included) (RMB/kWh)
Daya Bay Unit 1	Guangdong Power Grid Co., Ltd.	0.42
Daya Bay Unit 2	Guangdong Power Grid Co., Ltd.	0.42
Ling'ao Unit 1	Guangdong Power Grid Co., Ltd.	0.429
Ling'ao Unit 2	Guangdong Power Grid Co., Ltd.	0.429
Lingdong Unit 1	Guangdong Power Grid Co., Ltd.	0.43
Lingdong Unit 2	Guangdong Power Grid Co., Ltd.	0.43
Yangjiang Unit 1	Guangdong Power Grid Co., Ltd.	0.43
Yangjiang Unit 2	Guangdong Power Grid Co., Ltd.	0.43
Yangjiang Unit 3	Guangdong Power Grid Co., Ltd.	0.43
Yangjiang Unit 4	Guangdong Power Grid Co., Ltd.	0.43
Fangchenggang Unit 1	Guangxi Power Grid Co., Ltd.	0.4207
Fangchenggang Unit 2	Guangxi Power Grid Co., Ltd.	0.4207
Ningde Unit 1	Fujian Power Grid Co., Ltd.	0.43
Ningde Unit 2	Fujian Power Grid Co., Ltd.	0.43
Ningde Unit 3	Fujian Power Grid Co., Ltd.	0.4055
Ningde Unit 4	Fujian Power Grid Co., Ltd.	0.3717
Hongyanhe Unit 1	Liaoning Power Grid Co., Ltd.	0.4142
Hongyanhe Unit 2	Liaoning Power Grid Co., Ltd.	0.4142
Hongyanhe Unit 3	Liaoning Power Grid Co., Ltd.	0.4142
Hongyanhe Unit 4	Liaoning Power Grid Co., Ltd.	0.4142

Business Performance and Analysis

Upon the proactive communication between the Company and Yangjiang Nuclear with the relevant departments, in November 2017, Yangjiang Nuclear received notification from Guangdong Provincial Development and Reform Commission that the on-grid tariff of Yangjiang Units 5 and Unit 6 were all approved to be RMB0.43/kWh (tax included), and shall become effective from the date the respective units commence commercial operation. Yangjiang Unit 5 and Unit 6 are expected to be put into commercial operation in the second half of 2018 and the second half of 2019 respectively.

The tariff of third-generation nuclear power are determined by relevant departments of the PRC. As there is no generating unit adopting the third-generation technology in China that has commenced commercial operation, the tariff of the third-generation nuclear power has not been determined. With the progress of the construction of third-generation nuclear power units in China, we had discussions with relevant national authorities and domestic and foreign counterparts in 2017 on the tariff of third-generation NPPs and actively promoted the research on the third-generation nuclear power tariff by the relevant state departments. We will continue to track the development of tariff determination for third-generation nuclear power units, and participated in related research projects. The determination of tariff for the third-generation nuclear power units is closely related to the future development of the nuclear power in China. We believed that relevant departments of the State will take into account various factors and determine a reasonable tariff.

Lean Management

In 2016, according to the Company's 13th Five-Year Plan, on the basis of the SCS, the Company completed the implementation plan for lean management strategy. On the basis of the implementation plan for lean management strategy, we referred to the practices of international counterparts, and implemented business improvement to achieve the requirements of lean management. In 2017, the first year of implementing the Company's lean management strategy, we achieved certain successes in our business improvement.

The preventive maintenance program of NPP mainly includes the items of equipment maintenance, the main contents of the routine maintenance, which were our fundamentals for arranging and carrying out related maintenance activities. Through the implementation of the preventive maintenance program, we identified the major works during the routine maintenance and refuelling outages of the NPP. In 2017, by implementing optimization methods such as Reliability-Centered Maintenance (the "RCM"), Failure Modes and Effects analysis (the "FMEA"). Through combining the Company's internal and external experience feedback, under the premise of meeting regulatory requirements and ensuring the safety of power plants, we analyzed and optimized the preventive maintenance program so that the total number of maintenance items and the repair intervals and maintenance contents of some of the items would be less than from the previous ones. At the same time, through strengthening online monitoring and personnel inspection, we ensured the equipment was always in normal condition. This had further improved the reliability of equipment and promoted the safe, stable and economical operation of NPPs.

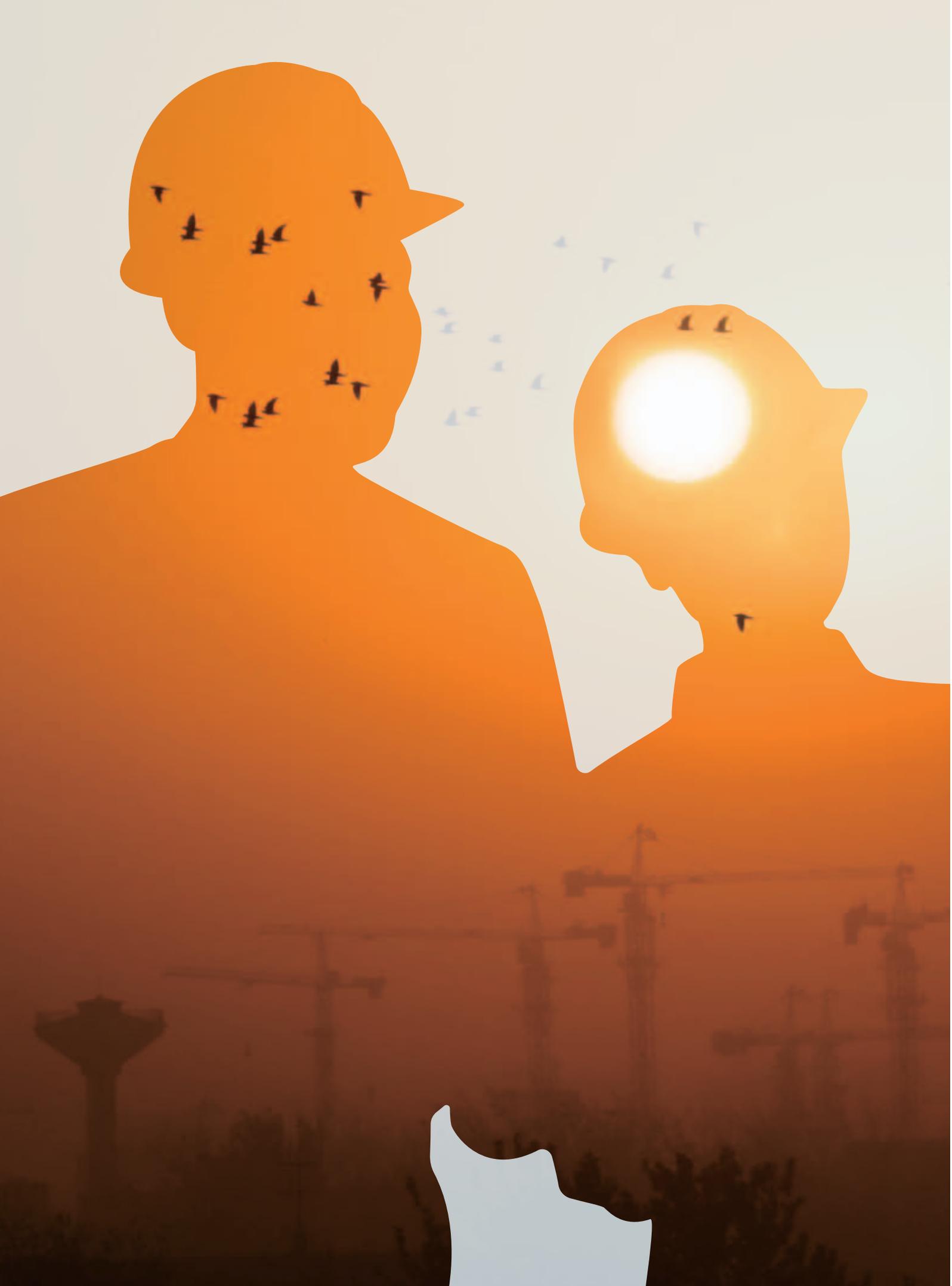
Future Outlook

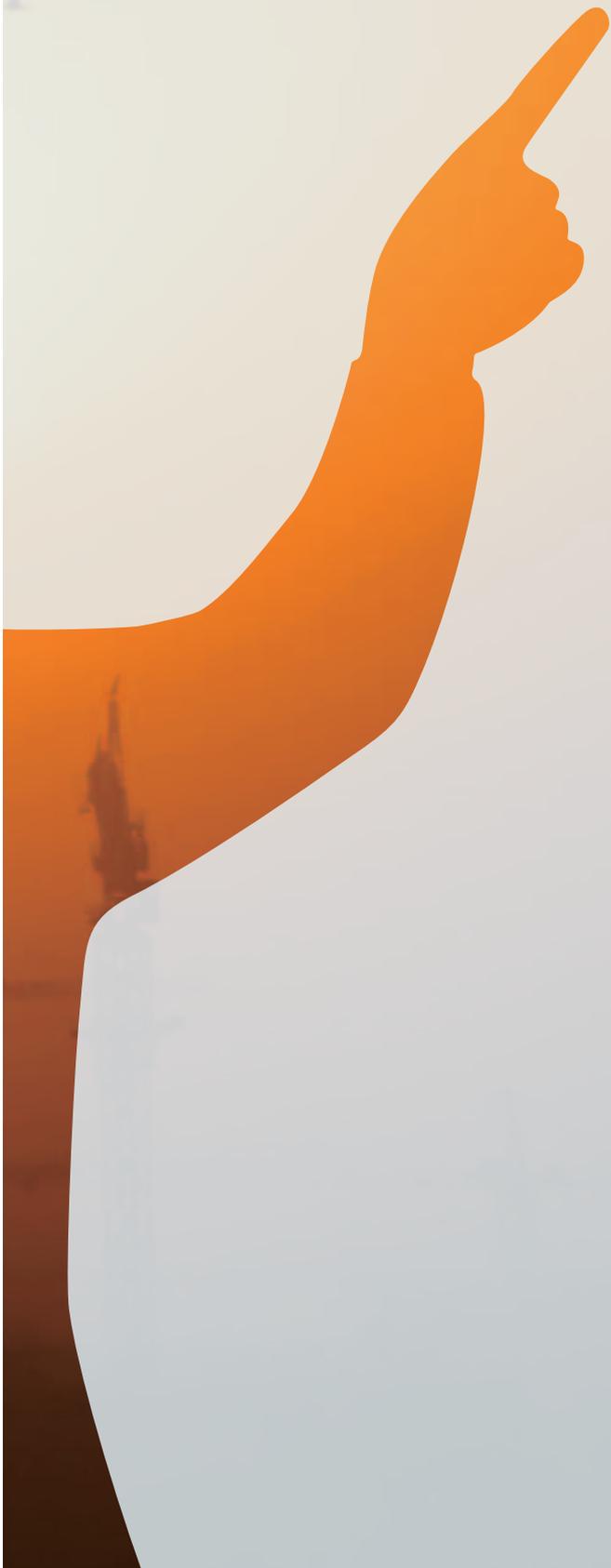
In 2017, the pace of the national energy system restructuring was accelerated. The composition of power supply will continue to optimize. The convening of the 19th National Congress marked the entry of China into a new era. Economic development will remain stable, and will be reflected in the growth of the physical economy. Under the background of continuously optimizing the energy supply structure in China and always adhering to the strategic direction of green low-carbon development, the Company will still enjoy its strategic phase of development with nuclear power as a clean, stable and economical energy source.

With China's economic development entering into a period of new era and the ongoing intensified implementation of power system reform, the Company's operation is facing a lot of new requirements and new changes. We will adhere to the nuclear safety culture with "Honesty and Transparency" and the basic principle of "Safety First, Quality Foremost, Pursuing Excellence" as well as the core value of "Doing Things Right in One Go" to explore new ideas, actively plan and respond.

In 2018, we plan to carry out the following initiatives:

- In the premise of ensuring safety and quality, we will push forward construction of generating units as planned. Two generating units under construction (Yangjiang Unit 5 and Taishan Unit 1) are expected to commence commercial operation in 2018;
- We will fully implement nuclear safety management actions and responsibilities to ensure the safe and stable operation of all the generating units in operation. We will conduct 13 refuelling outages during the year (excluding the outage for Ningde Unit 3 at the end of 2017);
- We will adapt to the changes in the electricity market situation, continuously optimize the marketing system, mechanism of electricity market, strengthen the capabilities of the marketing team for sales of electricity to strive for more on-grid generation;
- We will intensely push forward the implementation of SCS management strategy and continuously commence lean management to effectively control construction cost of units under construction as well as operation and management cost of generating units in operation;
- We will enhance output of nuclear power generating units, promote reliability of fuels, improve reliability of equipment, improve safety system performance of power generating units through technological and market-oriented measures with new business growth driven by technological innovation such as application of technology innovation and technical transformation; and
- We will closely follow the change of national policy and 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, adjust our measures when appropriate and conduct equity financing in appropriate times to ensure the steady development of the Company.



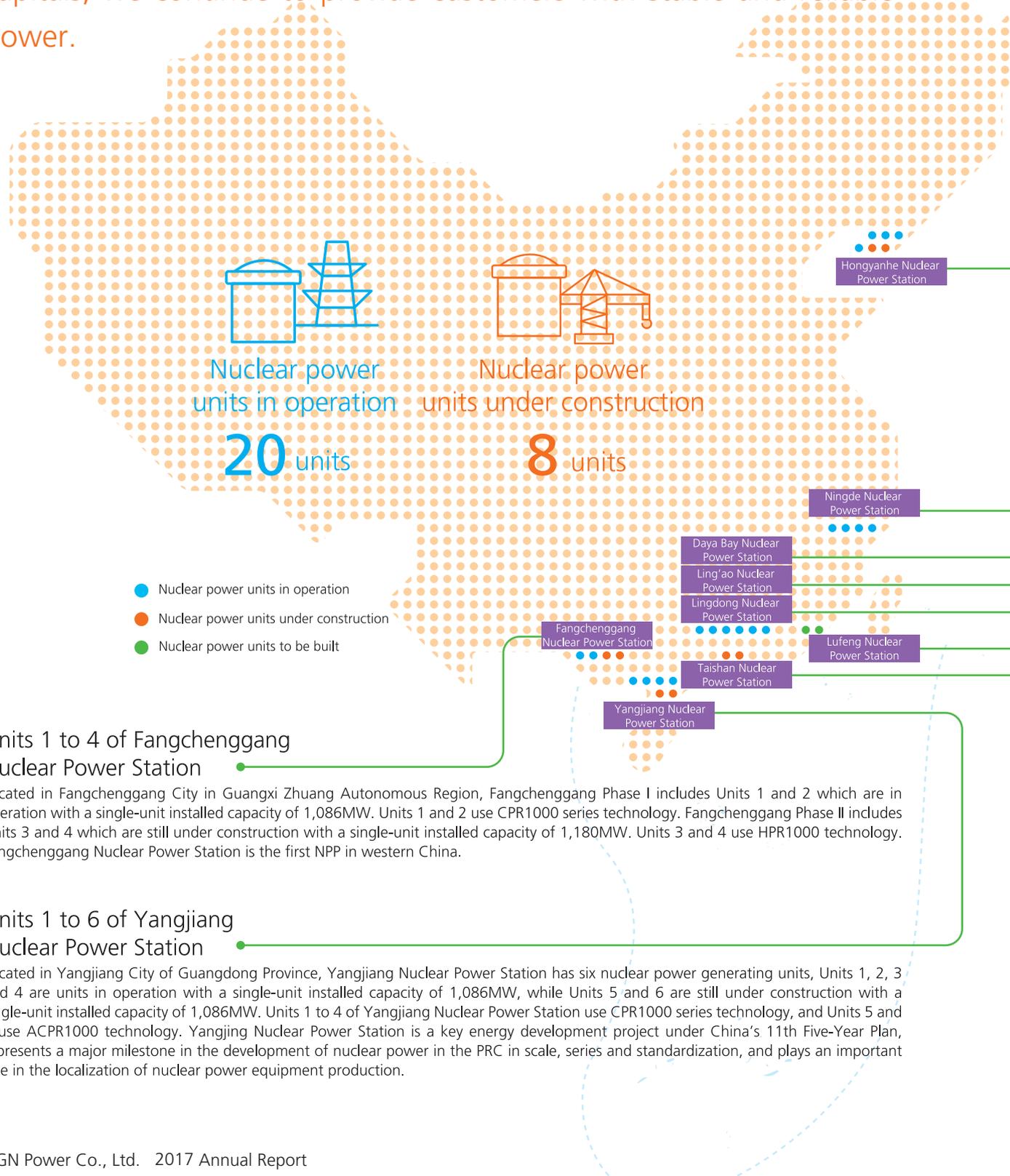


Capitals

- 56 Production Capital
 - 62 Intellectual Capital
 - 68 Human Capital
 - 79 Financial Capital
 - 86 Environmental Capital
 - 88 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.



- Nuclear power units in operation
- Nuclear power units under construction
- Nuclear power units to be built

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 series 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 China.

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, Units 1, 2, 3 and 4 are units in operation with a single-unit installed capacity of 1,086MW, while Units 5 and 6 are still under construction 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. Yangjing Nuclear Power Station is a key energy development project under China'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.

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, 2, 3 and 4 are units in operation with a single-unit installed capacity of 1,119MW, while Units 5 and 6 were still under construction with a single-unit installed capacity of 1,119MW. 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 operations in Northeast China.

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 China.

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 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 the 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 equipment.

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, both 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.

Units 1 and 2 of Lufeng Nuclear Power Station

Located in Lufeng City in Guangdong Province, Lufeng Phase I includes Lufeng Units 1 and 2, and total installed capacity of 2,500MW. The project has not commenced construction yet. Lufeng Phase I obtained the approval letter in relation to the launch of preliminary work of Lufeng Phase I (《關於同意廣東陸豐核電一期工程開展前期工作的函》) from the NDRC on December 27, 2010, and was approved by the NDRC on March 13, 2013 to adopt the third-generation nuclear power technology of AP1000.

Units 1 and 2 of Taishan Nuclear Power Station

Located in Taishan City of Guangdong Province, Taishan Nuclear Power Station has two units under construction, both with a single-unit installed capacity of 1,750MW and using 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

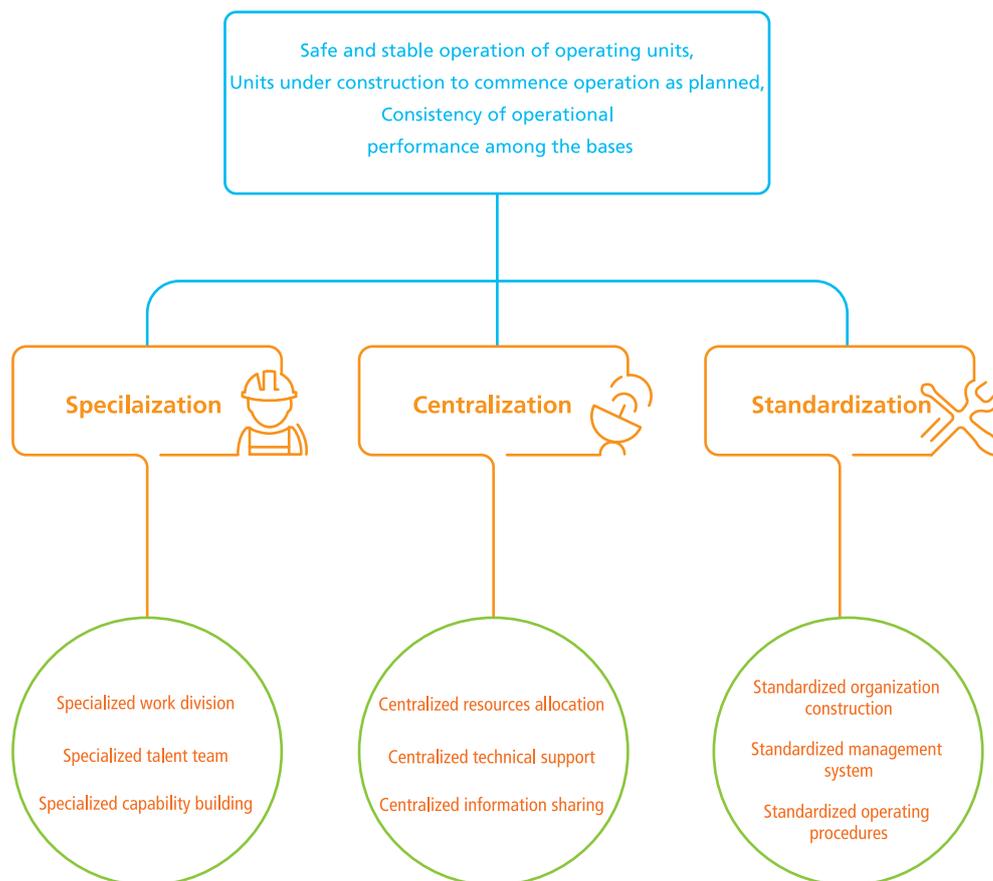
Management Strategy

Since the Daya Bay Nuclear Power Station commenced commercial operation, the Company has gone through the development stages from single plant power stations to multi plants power station of nuclear power base stage, and then from single nuclear power base to multi-site nuclear power bases stage. Over the years, through implementation of benchmarking, we carried out multi-layered safety supervision and evaluation, promoted the SCS of management, continuously promoted safety management of the Company to enable the Company to continuously adapt to new changes of internal and external situations, thereby promoting our ongoing improvement in operational performance.

According to the lean management strategy implementation plan formulated in 2016, details on the implementation of lean management in the Company for 2017 are set out in the section “Lean Management” set out on page 52 of this Annual Report. Subsequently, we will continue to implement lean management in accordance with the plan so as to further enhance the management level.

SCS Management

To maintain the safe and stable operation of 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.



For specialization, the Company owns specialized companies including CGN Operations, CNPRI, Suzhou Nuclear Power Research Institute and CGN Engineering, to promote refueling outage, engineering modification, equipment management, spare parts management as well as design and construction of NPPs.

For centralization, we continued to reduce the operating cost of the Company through centralized management such as by means of resource allocations. For instance, we actively implemented the centralized procurement of spare parts, hoping to make use of centralization and reduce procurement cost for the Company by centralized procurement and bargaining as well as procurement pipeline optimization. At the same time, centralized procurement of spare parts will ensure a timely replacement and centralized supply of equipment during the daily maintenance and refueling outage of all NPPs when necessary. Combined with the actual situation of spare parts procurement and utilization of NPPs over the years, we have established a centralized procurement catalog of spare parts containing spare parts of all nuclear power bases and carried out the spare parts procurement activities gradually in accordance with this catalog. In 2017, the proportion of spare parts centralized procurement amounted to 90.2% (the proportion of centralized procurement was 89.5% in 2016).

For standardization, we established the OPST (Organization, Procedure and process, Knowledge and skill and System tools) management model for key operating areas so as to realize the “Four unifications”, 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.



Ningde 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 on safety, out of our conviction that “only a safe nuclear power plant can be economical”. The Company is committed to the safety culture construction with “demonstration by leaders, implementation by backbones, participation by all employees”, and set up a complete safety management system with defense-in-depth management principle, adopt dynamic and transparent experience feedback, carry out wholly independent safety supervision, establish emergency response and disposal mechanism under emergency conditions, so as to ensure the safe, economical and reliable operation of our plants and the safety of the society and public.

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, the guiding principles for defense-in-depth have also been applied in the safety management system in the construction and operation phase to establish defense-in-depth barriers for prevention, monitoring and correction actions to cope with possible failures of equipment, personnel and organization, so as to maintain the completeness 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.

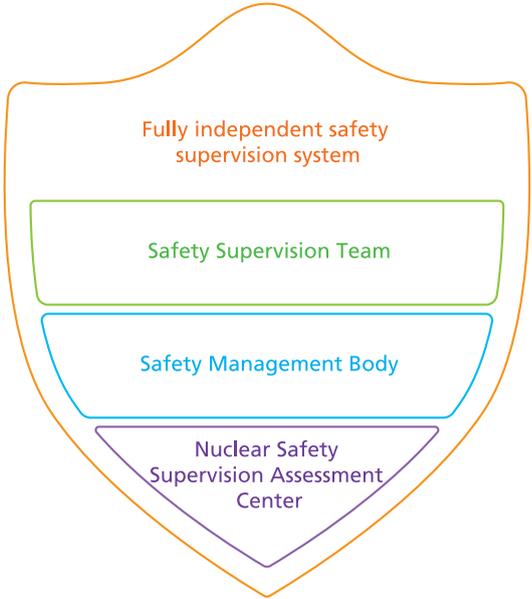
Top-down Nuclear Safety Culture for All Employees

We deeply believe that 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, participation of all employees, regulating personal safety behaviors through the respect of nuclear safety, promoting the “safety is a must” pro-activeness of all employees, hence converting the principle of “safety first, quality foremost” into the daily working habits of all employees.

Fully Independent Safety Supervision System

We have established three levels of safety supervision systems. The first level is the on-site safety supervision team with NPP safety engineers at the core to ensure the effectiveness of daily production activities of the NPPs in terms of safety. The second level is the safety management body with the basic functions of managing the safety quality of NPPs, ensuring and overseeing the effectiveness of the safety management system at the organizational level. The third level is the Independent Nuclear Safety Supervision and Evaluation Center (the “**Nuclear Safety Supervision Center**”) targeting multi-site plants, which carries out independent safety supervision and evaluation on the effectiveness of the safety management of every NPP. The independent evaluation conducted by the Nuclear Safety Supervision Center, which 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. According to the national nuclear safety regulatory requirements, we are also subject to the random and targeted inspection of NNSA on NPPs we manage. The NNSA also oversees and checks our compliance with nuclear safety regulations.



Furthermore, we also follow the safety management common practices of international NPPs, and regularly organize and invite our international peers to carry out safety assessment of the NPPs we manage. Such international independent safety assessments include peer review and safety assessment organized by the IAEA and the WANO and performed by international peer experts. Through peer evaluation and monitoring internationally, we can effectively share the good safety management practices of international peers and continuously improve our safety management level.

Dynamic and Transparent 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, devising corrective actions targeting at fundamental reasons, and forming a dynamic and transparent experience feedback system to prevent reoccurrence of incidents. While focusing on feedbacks for events occurred during the operation and management of NPP, we also regularly conclude and solidify our good practices, and learn from external experience feedbacks through continuous exchanges with peers to facilitate enhancement of our safety management.

Vigilant Nuclear Emergency Response and Disposal System

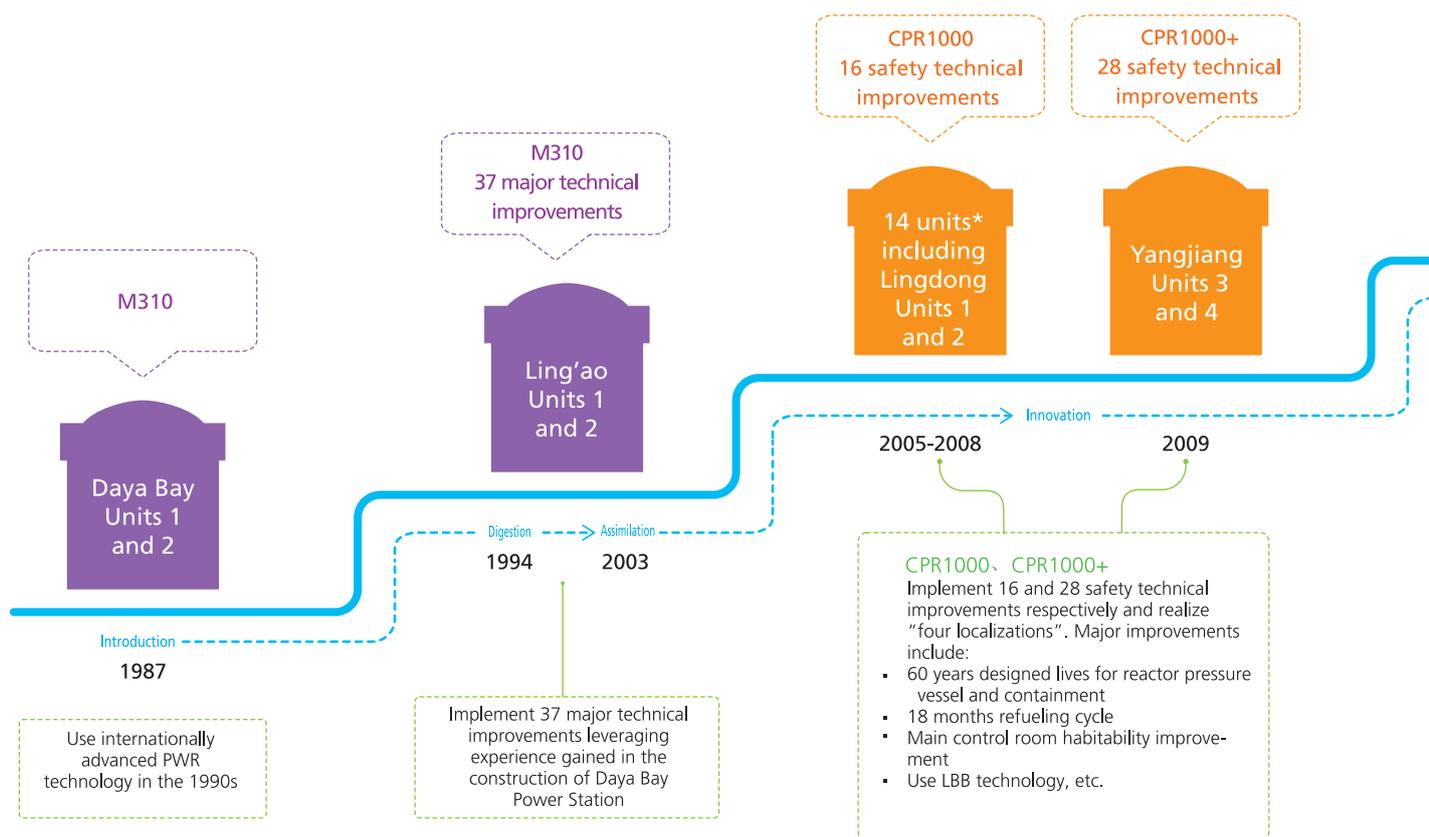
In order to respond quickly and effectively to nuclear emergencies, NPPs must have well-conceived general contingency plans and adequate emergency preparations, and establish vigilant nuclear emergency response and disposal system. We have a full-coverage emergency management system focusing on nuclear emergency response, a multi-layer emergency defense mechanism, professional emergency response facilities and adequate and 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 R&D capabilities are among the core resources for our sustainable development. We always focus on R&D that improve our business performance to enhance our competitiveness and growth.

Selection and Development of Nuclear Technologies

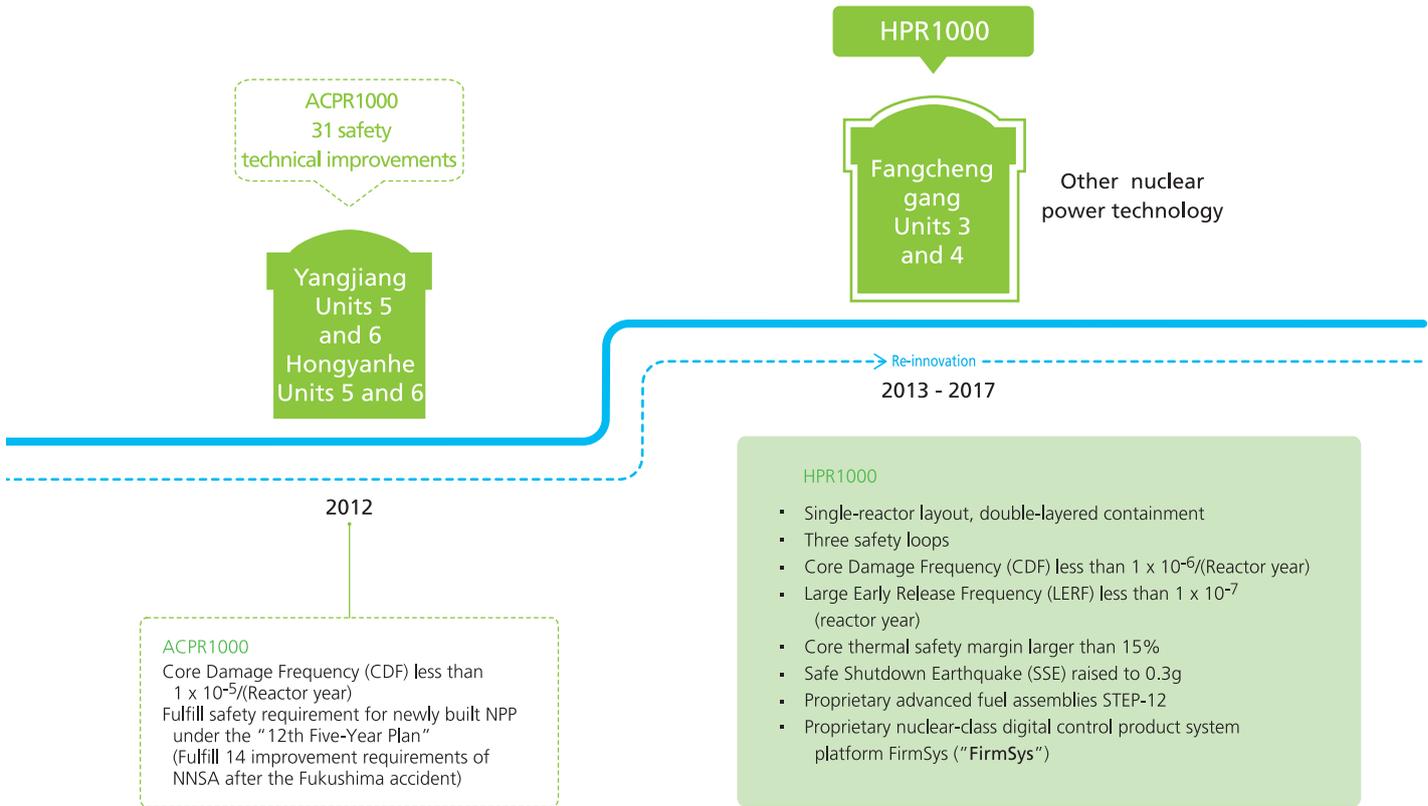
We focus on the development of PWR technology. Since the construction of Daya Bay Nuclear Power Station in 1980s, we have persisted in the path of “Introduction, Digestion, Assimilation and Innovation” (“引進、消化、吸收、創新”), and have consistently improved our R&D capabilities. On the foundation of the M310 reactor technology used by Daya Bay Nuclear Power Station, we worked with CGNPC in implementing a series of major technological improvements (including 16 safety technology improvements) to create the second-generation improved CPR1000 series nuclear power technology with own brand. By 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 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 own the proprietary intellectual property rights of the third-generation nuclear power technology HPR1000. HPR1000 is a gigawatt-level third-generation nuclear power technology of proprietary intellectual property developed on the basis of experience, technology and talents from China’s NPP design, construction, operation and development for the past three decades. The safety and economic indicators of HPR1000 have all reached the international advanced level. HPR1000 enjoys certain 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 Unit 3 and 4 are regarded as the demonstration projects of the technology of HPR1000 and the reference plant of Bradwell B Project in United Kingdom. Fangchenggang Unit 3 and 4 have commenced construction on December 24, 2015 and December 23, 2016, respectively. The construction of the two generating units are currently progressing smoothly.

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. Taishan Nuclear Power Station has adopted EPR technology. Details of development of Taishan nuclear power project are set out in the section “Business Performance and Outlook” of this Annual Report. Our project of Lufeng nuclear power project is expected to adopt the AP1000 technology and the project is currently subject to approval by the PRC government.



Capitals

Intellectual Capital

The Company places a lot of emphasis to the development of small offshore reactors. We have been independently developing offshore small modular reactors ACPR50S for NPP which feature superior safety and have various modules and multiple functions. Such reactors can be used for the joint supply of thermal, power and freshwater for the development of marine resources, and the energy supply and emergency support for islands and areas along the coast and river, and have become an important choice for distributed marine integrated energy systems. The NDRC has agreed to include the ACPR50S marine nuclear power platform into the “13th Five-Year Plan” of energy technological innovation. We are driving forward the construction of ACPR50S experimental reactor platform. ACPR50S has been included in the list of Small Modular Reactors by IAEA.

We are closely monitoring the latest development of the fourth-generation reactor technology, and have been proactively participating in the R&D of the relevant technologies.

Independent R&D Platform

We have developed R&D platform of our Company. We own six national R&D centers and laboratories, namely the National Energy NPP Nuclear Equipment R&D Center, the National Energy Advanced Nuclear Fuel R&D (Experiment) Center, the National Energy NPP Operation and Life Management R&D Center, the National NPP Safety and Reliability Engineering Technology R&D Center, National Energy Nuclear Power Engineering Construction Technology R&D (Experimental) Center and State Key Laboratory of Nuclear Safety Monitoring Technology and Equipment. We have also established a number of large laboratories of advanced level within the industry including Thermal Hydraulics and Safety Research Laboratory, Material Performance Analysis Laboratory and Inaccessible Equipment Laboratory. As at the end of 2017 we had more than 5,000 R&D staff.



National Energy NPP Nuclear Classified Equipment R&D Center

Approved in 2009 and constructed by CNPRI. Its core competencies are provision of modification services to NPPs in operation and the design and manufacturing of nuclear power equipment.



National Energy Advanced Nuclear Fuel R&D (Experiment) Center

Approved in 2010 and constructed by CNPRI. Its core competencies are the R&D and design of fuels, fuel performance analysis, fuel test verification, zirconium alloy development, fuel assembly poolside inspection techniques and fuel management research.



National Energy NPP Operation and Life Management R&D Center

Approved in 2010 and constructed by Suzhou Nuclear Power Research Institute. Its core competencies are the studies on policies, regulations and standard systems, life evaluation techniques, life cycle economic analysis techniques, major equipment replacement techniques, condition monitoring and in-service inspection techniques, and assessment techniques for environmental impact of regular and extended life cycles.



National NPP Safety and Reliability Engineering Technology R&D Center

Approved in 2011 and constructed by Suzhou Nuclear Power Research Institute. Its core competencies are nuclear safety analysis and evaluation techniques, NPP environmental impact analysis and emergency response techniques, techniques for ensuring reliability of critical equipment, reliability testing and maintenance optimization techniques as well as NPP life evaluation and management techniques.



National Energy Nuclear Power Engineering Construction Technology R&D (Experimental) Center

Approved in 2010 and constructed by CGN Engineering. Considering major technical weakness of the nuclear power construction in China, its core competencies are integrated innovation and project R&D as well as defining R&D of professional areas, which mainly include human error engineering technology, commissioning technology, automatic welding technology, testing and evaluation of metal materials, digital instrumentation and control integrated verification, digital nuclear power engineering virtual simulation technology platform etc.



State Key Laboratory of Nuclear Safety Monitoring Technology and Equipment

Approved in 2015 and constructed by CGN Engineering. Its core competencies are NPP safe operation and its evaluation technology, nuclear power safety alert and accident prevention and control technology, human error reliability and man-machine interaction fault-tolerance technology, design of nuclear power instrumentation and control system and advanced manufacturing technology.

Intellectual Capital

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 to introduce in annual report. We continue to introduce some of the major technologies recently applied as follows.

Name of technology/equipment	Summary of the technology	Benefits
Localization of electronic control system for NPP emergency diesel generator	<ul style="list-style-type: none"> • This technology was researched and developed to resolve the proprietary control for NPP emergency diesel generator. For the first time in China, a new type of control method combining digital control and analog control was adopted to classify and control safety-level functions and non-safety-level control functions. This will reduce the probability of malfunction risk. • This system broke up the monopoly of foreign countries, and reached an internationally advanced level. • Supply contracts were entered into with Hongyanhe Nuclear Power Station, Fangchenggang Nuclear Power Station, Shandong Shidao Bay Nuclear Power Station. 	Enhanced reliability and economy
Proprietary dynamic calibration technology and ancillary reactivity meter	<ul style="list-style-type: none"> • Dynamic calibration method is the use of dynamic methods to calibrate the value of the control rod. The technology resolved the overseas calculation programs that were not consistent, and were difficult to promote the use of, and other issues. This proprietary developed reactivity instrument allowed portability, graphical presentation, high degree of automation. • This system broke up the monopoly of foreign countries, and reached an internationally advanced level. • The instrument was deployed at Ningde Nuclear Power Station, Yangjiang Nuclear Power Station, Hongyanhe Nuclear Power Station, and Fangchenggang Nuclear Power Station. 	Enhanced economy and safety

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 R&D. We believe that owning these intellectual property rights will strengthen our competitiveness.

Statistics of our intellectual property rights from 2013 to 2017

Year	Patent (Item)						Authorship Registration (Item)	
	Patent Application			Patent Licensing			Software	Others
	Invention	Utility Model	Design	Invention	Utility Model	Design		
2013	235	190	2	62	132	1	49	0
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
Total	1,707	1,302	7	725	1,123	9	475	53

In 2017, five invention patents, namely “Nuclear Power Plant Passive Final Heat Sink Cooling System and Methods” of CGN Operations, “Nuclear Power Plant Control Room Backup Panel Alarm Methods and System”, “Nuclear Power Plant Reactor Flow Distribution Structure” of the CGN Engineering, “Horizontal PWR Nuclear Power Plant Containment Pit Filter” and “Nuclear Fuel Upender Load Protection Methods and Systems” of CNPRI, won the 19th China Outstanding Patent Award awarded by the State Intellectual Property Bureau.

Capitals

Human Capital

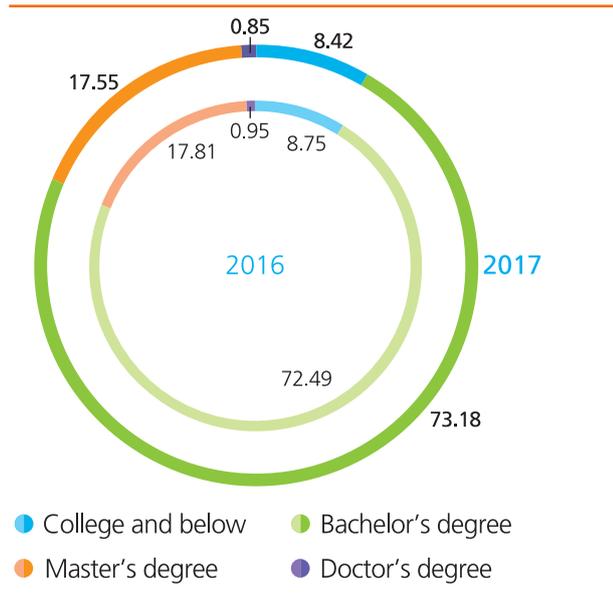
Having a team of sufficiently competent and experienced employees is the most valuable treasure of the Company. We always pay attention to the reasonable use and maintenance of human capital, and continuously improve the development and management system of human resources, as well as cultivate a talented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

Talent Force

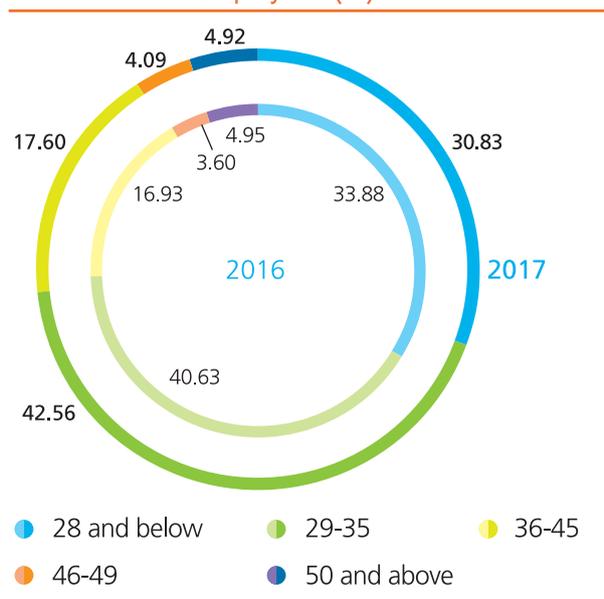
As at the end of 2017, we had 20,037 employees (including our affiliated companies).

Employee Structure

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



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



Functions	Number of Employees (As of December 31, 2017)	Number of Employees (As of December 31, 2016)
Administrative employees	1,308	1,365
Technicians	18,729	18,962
Total	20,037	20,327

Recruitment of Talents

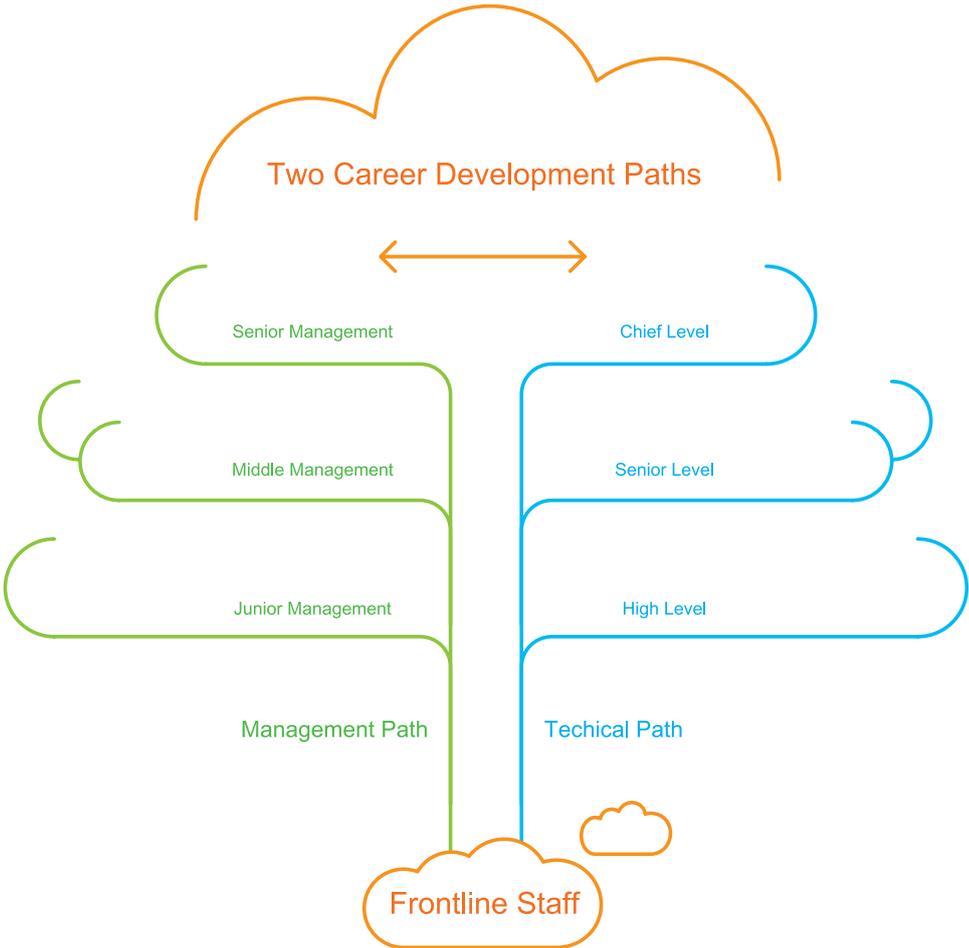
To meet the need of the Company’s business development, safeguard a reasonable structure of our talent force and make adequate talents available, the Company has formulated a human resources plan to recruit talents through a combination of on-campus recruitment and general hiring.

Due to the scarcity of nuclear power related majors, the supply of external talent market is relatively less, considering from the perspectives of the echelon formation and talent cultivation, our recruitment of talents is still focused on on-campus recruitment. In 2017, the Company recruited a total of 528 persons, among whom, 360 quality graduates were recruited through on-campus recruitment and 168 persons through general hiring.

Personal 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.



Human Capital

Internal Market

The Company encourages employees to concentrate on their own positions to master the business skills, becoming experienced professionals. Therefore, the Company does not encourage employees to swap their jobs too frequently. However, to realize a more reasonable use of internal human resources, we have established an internal talent market to realize optimal allocation of employees and better suit the development wishes of employees through participation in open recruitment or deployment.

In 2017, the Company improved the incentive and binding mechanisms for the turnover of talent. Through the change in clearance and authorization, more employees were made available to be sent to different provinces. This meant the domestic talent market could better serve the Company in business development. In the meantime, this could also satisfy the employees' demand to work in different areas and improve their enthusiasm towards the job.

Appraisal System

The Company is committed to the creation of a high performance organization. We improve employee and organizational performance through attention to enhancement of abilities, performance achievement and development of employees to ensure achievement of all objectives of the Company and promote the joint development of the Company with its employees. Through devising performance plans, we put our organization's goals into the work plans of employees, and carry out communication, counseling and follow-up during the course of the implementation of the plan to help employees finally achieve the expected performance results hence realizing the organization's goals. We evaluate employees' actual working results according to the performance plan, the evaluation results will be used for consideration of performance bonuses, post adjustment, training and development as well as term assessment.

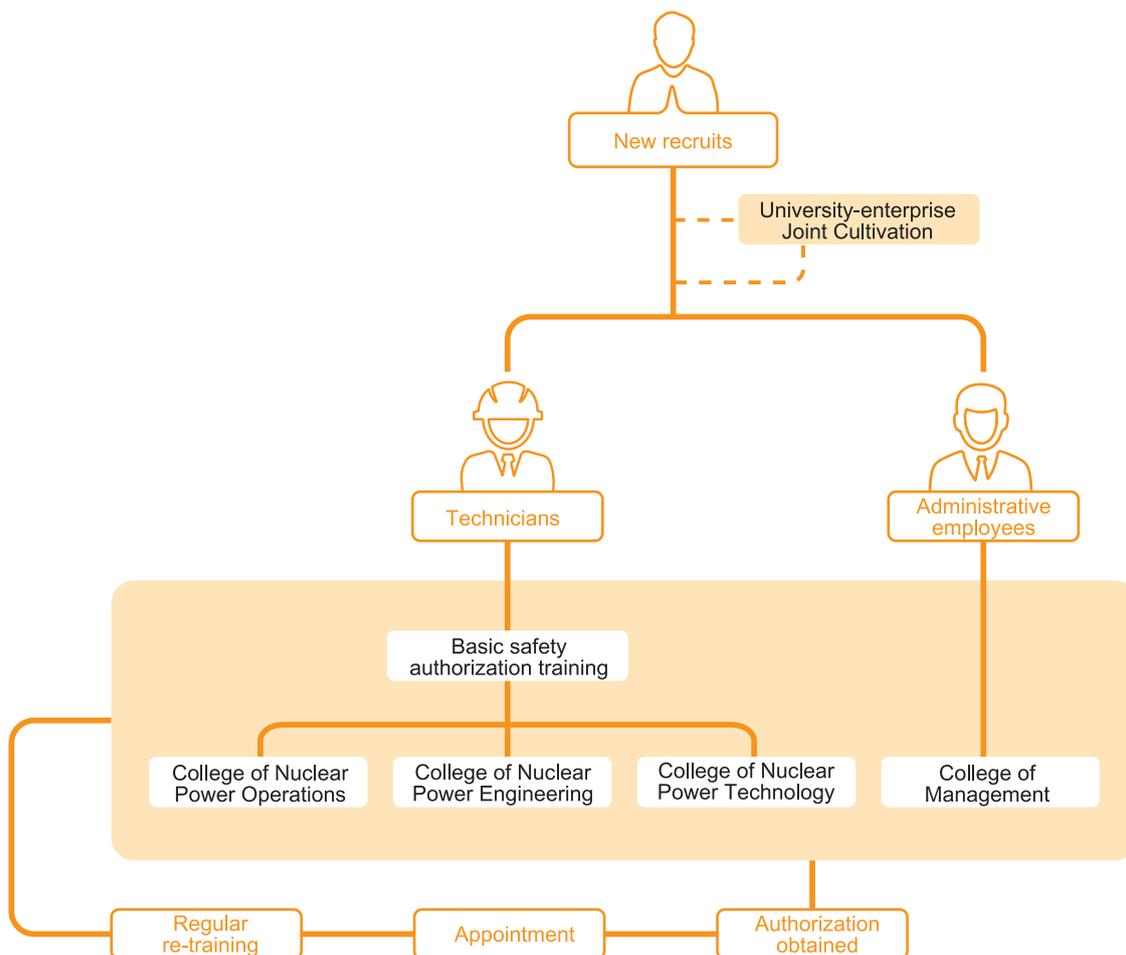
Personnel Training

With the rapid development of our businesses, the Company not only ensured the stable growth of the number of employees, but also enhanced the working skills of our employees. Adhering to the basic requirements of "entire staff training, authorized employment and life-long learning" and through implementing 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 rapid development of the Company, and has equipped the Company with the core competencies of adapting to specialized, scale and marketization nuclear power personnel training.

To match with the business development of the Company, we regularly renew the personnel training scheme. We had prepared our talent succession plan 2017 in accordance with the medium and long-term planning needs for talents and the feedback on training experiences. In order to enable new employees to rapidly improve their abilities and ensure the consolidation and enhancement of the working skills of the Company's existing employees, we organize trainings continuously. In 2017, the average training hours per employee of the Group was 172 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 more than 10 specialization courses on nuclear power during their university education. The Company has a 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.



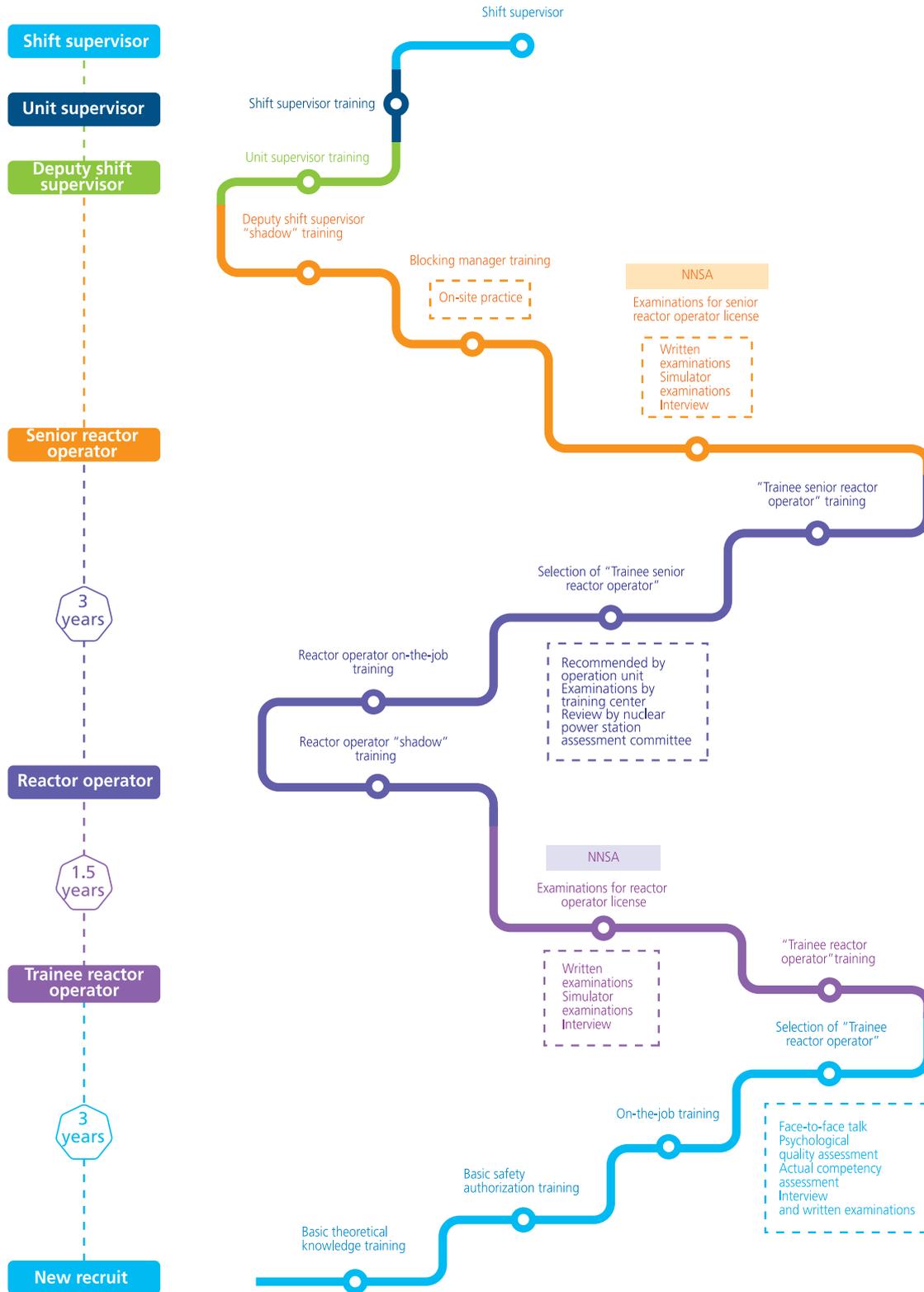
Nuclear power reactor operators are the key technical staff in NPPs. According to the relevant requirements of the Regulations of the People’s Republic of China on the Safety Supervision and Administration of Civil Nuclear Facilities (《中華人民共和國民用核設施安全監督管理條例》), operators should hold a “Reactor Operator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

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. STA is the same as the shift supervisors, and both require a “Senior Reactor Operator License”. In addition, an STA shall have a deep understanding of the regulations on nuclear safety, standards of designing NPPs, analysis approach of nuclear safety and other aspects.

Capitals

Human Capital

The diagram below shows our training process for reactor operators.



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

While nurturing the nuclear power reactor operators for the second-generation improved CPR1000 nuclear power technologies, we also 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 2017, we finished the development of courses on “HPR1000 System and Equipment” course. An EPR training course system was established with training carried out. This laid a good foundation for the training of relevant technical personnel.

Training Resources

As there might be many potential major risks in nuclear power units operation, we have to prepare 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 and post-accident analysis simulators.

As of the end of 2017, the number of simulators of all nuclear power bases were as follows:

	Full-scope Simulators (piece)	Principle Simulators (piece)	Function Simulators (piece)	Post-accident analysis Simulators (piece)	Severe accident analysis Simulators (piece)
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	1	1	0	0	0
Ningde Nuclear Power Base	2	0	0	0	0
Hongyanhe Nuclear Power Base	2	0	0	1	0

For maintenance techniques training, we have 113 skills training rooms (including the refueling training facilities) with a total area of about 35,900 square meters, covering all maintenance areas and skills, which can carry out more than 221 training items. The Nuclear Fuel Operation Training Center is the only training and qualification examination certification center in China for nuclear fuel operators which simulates real situations. In 2017, 26 fuel operators were trained including 5 fuel operators from other companies.

Capitals

Human Capital

The Company develops and improves corresponding curriculum based on post training programs. As of the end of 2017, we had a total of 8,466 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. Taking STA post training as an example, the courses on "Enhanced Training for Safety Supervision of STA" are newly developed high-end courses for license training and special training in nuclear safety. The courses provide in-depth training through the core structure/thermal engineering principles and severe accidents simulation, which allows the STA to have a more in-depth understanding of the roles and responsibilities of nuclear safety technical advisors. The STA was given more in-depth understanding on core design, safety analysis and accident mechanisms. Safety measures and risk awareness were enhanced, which improved the level of independent oversight of nuclear safety and ensured the safe and stable operation of NPPs.

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. Currently, we have 208 full-time instructors and 1,273 part-time instructors. We also require management to participate in tutoring to share their knowledge and experience. In 2017, the average teaching hours of management was 9.96 hours.

Forms of Training

We launch various trainings every year, including face-to-face training, online training and mobile-app training, etc., as well as making staff skill competitions more scientific, standardized and professional by continuously innovating on competition format, raising competition levels and widening technology communication channels. In 2017, we hosted the "2017 Guangdong Province Employees Technology Competition - NPP Control Room Reactor Operator Skills Competition". More than 500 competitions at base level were conducted and participated in by various companies, involving more than 30,000 people. Through a wide range of skill competitions, the training forms were enriched and a strong learning atmosphere of "matching, learning, driving, helping and exceeding" 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 prevailing licenses of the Group can effectively manage dozens of nuclear power generating units at the same time. As of December 31, 2017, the Group (including affiliated companies) had 599 reactor operators and 656 senior reactor operators holding valid licenses. 80 and 99 employees gained licenses for reactor operators and senior reactor operators in 2017, respectively.

Relevant qualification of employees provides firm support and professional assurance on the Company's strategic development and business expansion. As of December 31, 2017, 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); 35 registered Utility Engineers (power); 45 registered Electrical Engineers (power generation and transmission).

In addition, 21 employees participated in the training for fuel operators and passed certification examination to obtain the qualification for fuel operators.

In 2017, we made great achievements in talent cultivation. Qiao Sukai, our nuclear fuel operator, won the honorary title of "Great Country Craftsman". Li Qiangtao, a nuclear island layout design engineer, won the honorary title of "Shanghai Craftsman". Feng Ping, a valve maintenance engineer, won the honorary title of "Pengcheng Craftsman". In addition, the "Wang Jiantao Nuclear Power Equipment Maintenance Master Studio", which was named after Wang Jiantao, an electrical maintenance engineer, was formally established and ranked first in the key projects for Shenzhen Master Skills Studio in 2017. These honors were not only rewarding individuals, but also affirming our years of efforts in talent cultivation. The training of these professional and technical talents provided strong support for the safe and stable operation of our nuclear power generating units.

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 State 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.

Human Capital

The Company has established a long-term share appreciation rights incentive scheme to enhance its attractiveness to key talents and create more value for shareholders. According to the H Shares Appreciation Rights (the “**Shares Appreciation Rights**”) Scheme (the “**Scheme**”) as approved at the 2014 AGM, as of December 17, 2016, the initial grant of the Share Appreciation Rights had been completed. The Company has entered into agreements for the share appreciation rights with our Directors, senior management and some of the key personnel. The vesting period for the Scheme of the initial grant has expired. According to the Scheme, 2/3 of the vested initial grant shares are not exercised as the current share price has not reached the conditions for the exercise. For retired/resigned Directors and senior management, the specific arrangements for the exercise are implemented in accordance with the Share Appreciation Rights 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 Rules Governing the Listing of Securities on the Stock Exchange of Hong Kong Limited. Please refer to Note 46 of the consolidated financial statements in the Annual Report for details of the first grant of the Shares Appreciation Rights.

The second batch of Share Appreciation Rights Incentive Scheme was considered and approved by the Board on December 14, 2017. The Company and related employees have already signed agreements regarding Share Appreciation Rights, which agreements were filed with competent state authorities. The second batch of Share Appreciation Rights is still subject to the restriction period.

The Company has bought social security (with 100% coverage), supplemental medical insurance and enterprise annuity for employees. According to State 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.

Occupational Health Management

We are highly concerned about the occupational 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 OHSAS18000 occupational safety and health management system.



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 NPP to carry out the relevant activities.

Capitals

Human Capital

The table below sets out information on the maximum individual radiation exposure (Unit: mSv) among the personnel (including the staff, contractors and other personnel) who entered into the control area to work each year at NPPs operated and managed by us:

NPP/unit	2013	2014	2015	2016	2017*
Daya Bay Nuclear Power Station	13.35	6.91	7.14	8.277	6.756
Ling'ao Nuclear Power Station	13.70	7.73	8.51	6.071	6.610
Lingdong Nuclear Power Station	5.66	4.10	5.26	6.834	7.668
Yangjiang Nuclear Power Station Units 1-4	—	1.02	6.72	13.078	7.889
Fangchenggang Nuclear Power Station Units 1-2	—	—	—	0.432	8.034
Ningde Nuclear Power Station Units 1-4	1.27	6.06	12.01	7.537	8.624
Hongyanhe Nuclear Power Station Units 1-4	1.11	8.08	5.62	5.404	7.803

* The annual outage is the key factor affecting the individual radiation exposure of all NPPs. Compared with 2016, the major outage activities in 2017 at Ling'ao Nuclear Power Station, Lingdong Nuclear Power Station and Ningde Nuclear Power Station were basically the same. Therefore, the maximum individual radiation exposure did not change materially as compared with 2016. The major outage activities at Daya Bay Nuclear Power Station and Yangjiang Nuclear Power Station had been reduced. Therefore the maximum individual radiation exposure was less than that in 2016. The major outage activities at Fangchenggang Nuclear Power Station, Hongyanhe Nuclear Power Station had been increased. Therefore, the maximum individual radiation exposure was more than that in 2016. The annual maximum individual radiation exposure for each NPP is all much lower than the management target limits of the NPP, and also much lower than the limits as provided by the laws and regulations of the State.

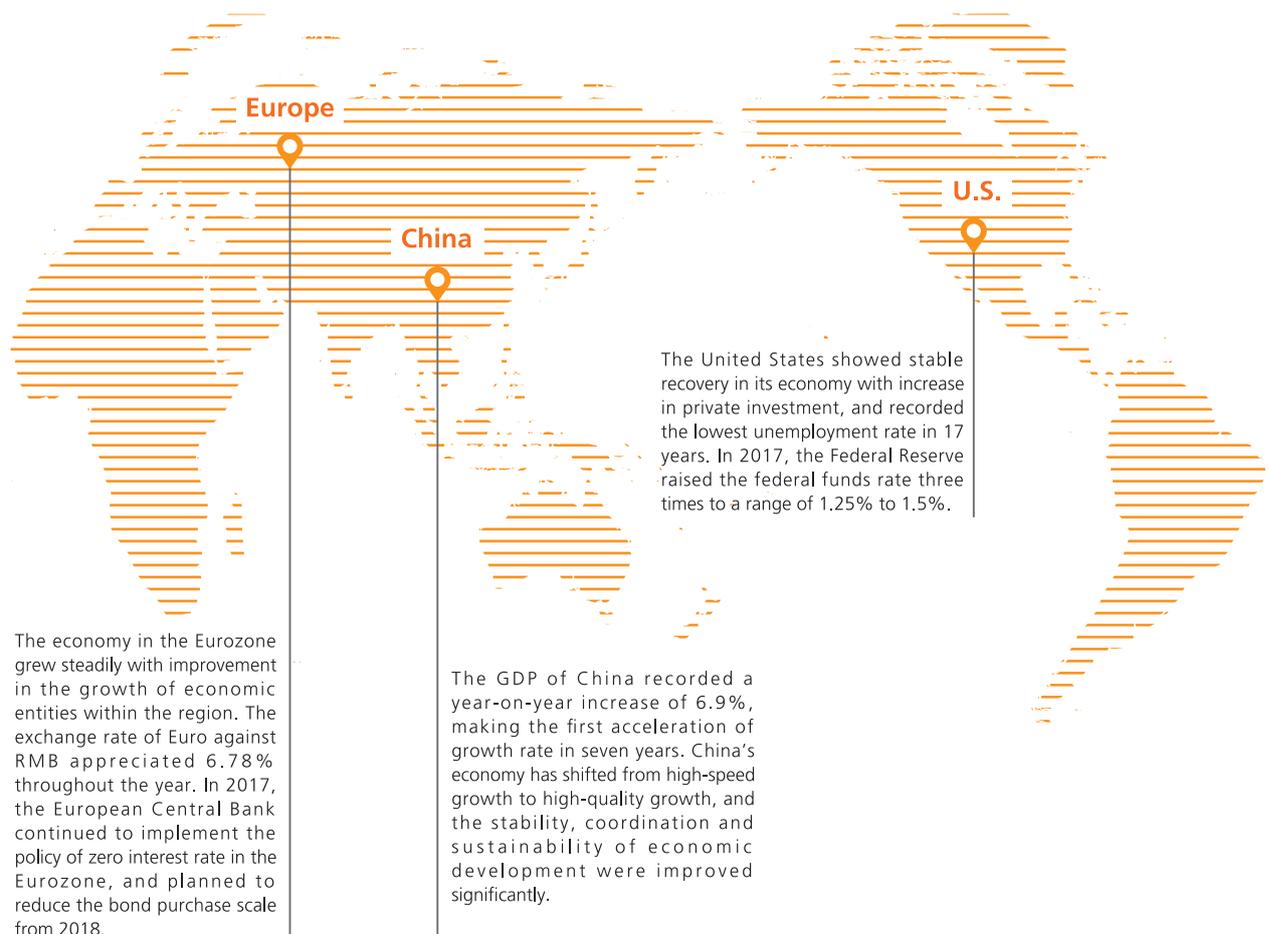
We pay attention to all the safety events in the work process. While properly arranging relevant personnel, we thoroughly investigate all events and conduct root cause analysis, conduct feedback among our NPPs to raise the safety awareness of staff and contractors, and adopt a series of measures to enhance safety management and avoid reoccurrence of such events. In 2017, 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 and did not cause any minor or more serious safety incidents. For details on the performance in relation to occupational safety and health issues, please refer to 2017 ESG Report published by the Company.

Financial Capital

Our capital needs mainly come from the capital expenditure for construction of NPPs and facilities, debt servicing and operating capital requirements. The sources of capital include cash generated from operating activities, shareholders' cash investment, and bank borrowings and bond issuance.

External Financing Environment

With a moderate recovery in the world economy in 2017, the economies of the developed countries enjoyed a good momentum of growth, whilst the growth rate of emerging markets and developing economies stabilized and picked up. Global trade and investment recovered. Bulk commodity prices rose, but remained relatively volatile. There were signs that the monetary policies of major economies tended to resume back to their normal state.



Capitals

Financial Capital

In 2017, the local monetary policy in China remained stable and neutral. With the benchmark interest rate of RMB loans remained unchanged, the interest rate of RMB in the market gradually rose. The scale of credit was balanced but tight, putting some pressure on the Company's financing. Meanwhile, the sharp fluctuations in foreign exchange rates posed challenges to the Company in the risk management of debts denominated in foreign currencies. In light of the changes in the internal and external financial environment, the Company further consolidated funds plan management and monthly risk monitoring, proactively explored external financing channels and promptly implemented reorganizations of debt structure of nuclear power projects. Terms of loans and interest rate structure were continuously optimized, which facilitated the reduction of the impact of changes in the financial environment on the operation of the Company and promote our financial soundness and core business development.

Financing Pattern

Equity Financing

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.

We plan to conduct an initial public offering of RMB-denominated ordinary shares (A shares) for no more than 10% of the total share capital of the Company after issuance in China. The funds raised will be used for the construction of Yangjiang Units 5 and 6 and Fangchenggang Units 3 and 4 as well as replenishing the working capital of the Company. After the completion of fund-raising, our financial strength will be enhanced effectively, thereby reducing the financial costs of the Company and ensuring the funding needs for the development of nuclear power projects. For details, please refer to the relevant announcement dated February 2018 and the relevant circular dated March 2018 of the Company.

Diversification of Shareholders' Base

Under the premise of guaranteeing control of the Company and the safety of nuclear power production and operation, we responded to the trend of mixed reform, and actively explored the diversification of shareholding of affiliated subsidiaries. External capital was introduced, which optimized the ownership structure and corporate governance, thereby capitalising on the synergy between different business segments.

On 12 December, 2017, the disposal of a 17% equity interest in Yangjiang Nuclear was completed. The Company received consideration for the transfer of RMB5,000.0 million. On 29 December, 2017, the Company entered into an investment agreement with Shenzhen Guotong, with the intention to jointly set up a company holding a 61% equity interest in Fangchenggang Nuclear. The Company will hold a 60 % stake in the company.

For details of the above please refer to the section headed "Finance, Assets and Investment" in this Annual Report.

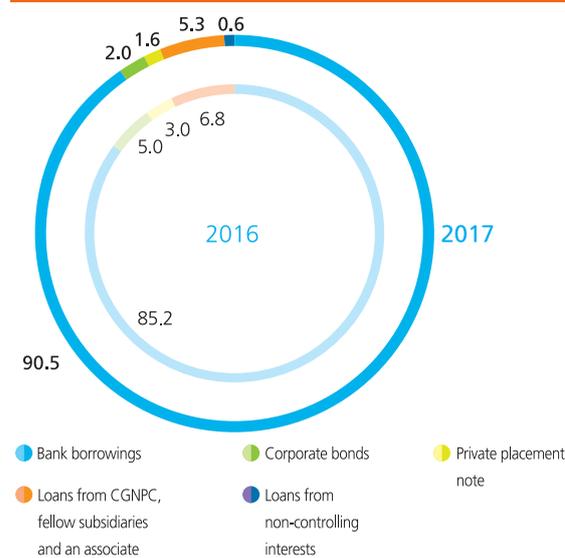
Debt Financing

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. As compared with the end of 2016, the Group's total bank borrowings and other borrowings increased by RMB51,071.2 million at the end of 2017, mainly because the Group has had control over Ningde Nuclear since January 1, 2017 and Ningde Nuclear has been consolidated into the Group. In 2017, on the basis of existing financing channels, the Company actively explored new and diversified financing channels. Medium-term notes and ultra short-term financing notes were registered with the amount of RMB13,000.0 million. In accordance with changes in the exchange rate of RMB, we explored cross-border financing with exchange rate risk locked up. In the meantime, we actively researched new financing tools such as asset securitization, which laid a solid foundation for securing long-term capital by the Company.

Debt balance analysis—by type (%)



Financial Capital

Borrowings from Banks and Other Financial Institutions

We meet our capital requirements for long-term stable investment 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. From 2015 to 2017, the proportion of the Group's long-term bank borrowings to its total bank borrowings and other borrowings was 74.5%, 73.0% and 80.6% respectively. 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.

Domestic Debenture Financing

The Company is a legal entity incorporated in the PRC and is qualified for the public issuance of bonds. 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, 2017, the Group's repaid and the newly registered debentures in 2017 were as follows.

Corporate bonds	The Company has three corporate bonds with a total face value of RMB8,500.0 million transferred from controlling shareholder CGNPC (with a term of 10-15 years) which were used for the construction of Ling'ao Nuclear Power Station, Lingdong Nuclear Power Station and Yangjiang Nuclear Power Station. The corporate bonds issued in 2002 with a principal of RMB4,000.0 million matured and were repaid in 2017.
Medium-term notes	In August 2017, the Company registered medium-term notes of RMB10,000.0 million with the National Association of Financial Market Institutional Investors, which were intended to be used to repay the Group's borrowings and bonds.
Ultra short-term financing notes	In March 2017, Yangjiang Nuclear, a subsidiary of the Company, registered ultra short-term financing notes of RMB2,000.0 million with the National Association of Financial Market Institutional Investors, which was intended to replenish working capital and repay debt; In September 2017, Fangchenggang Nuclear, a subsidiary of the Company, registered ultra short-term financing notes of RMB1,000.0 million with the National Association of Financial Market Institutional Investors, which was intended to replenish the working capital and repay debt.
Private placement note (PPN)	Taishan Nuclear, a subsidiary of the Company, issued a total of RMB2,100.0 million three tranche PPNs before its acquisition, and these PPNs were valid for three years. All the money raised was used for construction of Taishan Nuclear Power Station. Two tranches of notes issued in 2014 amounting to RMB1,600.0 million in total were repaid in 2017. Yangjiang Nuclear, a subsidiary of the Company, had issued five tranches of PPNs, which raised RMB3,000.0 million. The terms of these PPNs were all three years, which were used for construction of Yangjiang Nuclear Power Station.

Note: The details of our debentures are set out in Note 35 to consolidated financial statements on page 276.

Overseas Bond Financing

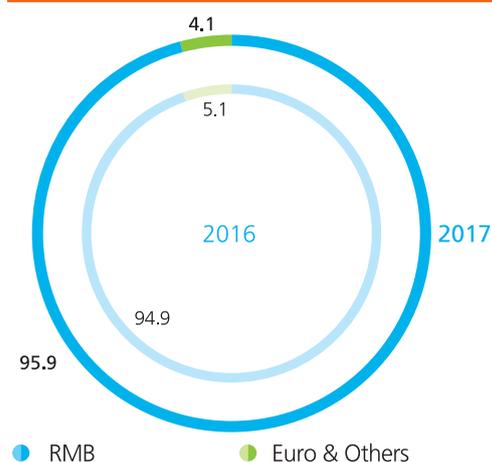
According to the Notice on Promoting the Reform of the Filing and Registration System for Issuance of Overseas Bonds by Enterprises (《關於推進企業發行外債備案登記制管理改革的通知》) promulgated by the NDRC on September 14, 2015, the Company has the ability and qualification of overseas bond financing and may issue overseas bonds subject to filings with the NDRC. In the future, the Company will consider factors including issue price, foreign exchange and tax policies, overseas investment demand and foreign exchange risk to opportunistically seek overseas bond financing activities. Besides, we will carry out international rating according to the overseas financing plan in due course. As of December 31, 2017, the Company has not carried out overseas bond financing.

Reasonable Currency and Term Structure

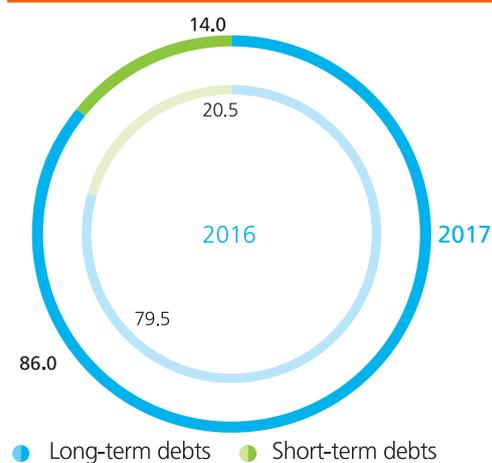
With regard to the financing currency, since revenue and cost of procurement of the Company are mainly denominated in RMB, we maintain a RMB oriented debt structure, which not only matches our operational characteristics, but also effectively prevents liquidity risks and systematic exchange rate risks of the Company. As at 31 December 2017, the proportion of bank borrowings and other borrowings that were denominated in RMB amounted to approximately 95.9%, whilst the bank borrowings and other borrowings denominated in foreign currency amounted to approximately 4.1%. Bank borrowings and other 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 2017, the Company continued to place emphasis on the term structure risk of our debt, which controlled the growth rate of short-term borrowings and increased the proportion of medium- and long-term debts among new debts, effectively alleviating the liquidity risk facing the Company as compared to the end of last year. As at 31 December 2017, the proportion of the Group's short-term debts accounted for approximately 14.0% of total debt, whilst long-term debts accounted for approximately 86.0%.

Debt balance analysis—by currency (%)



Debt balance analysis—by term (%)

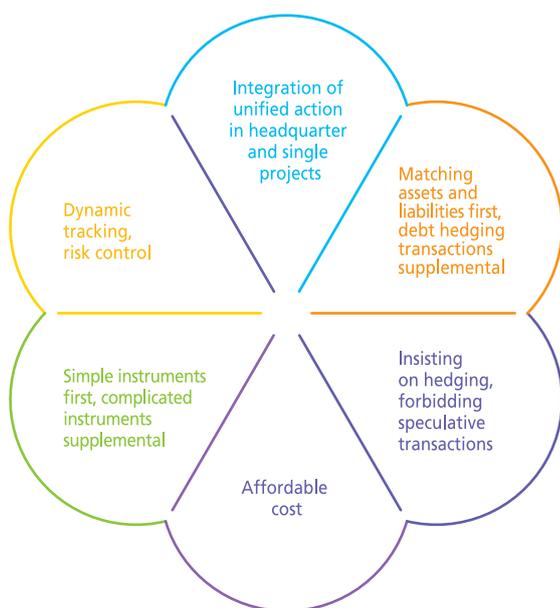


Financial Capital

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 with the supplement of complex instruments. 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 gradually reduce exchange rate exposure of foreign currency debts. Meanwhile, we managed new foreign currency debt by positively changing the financing terms for payments under foreign commercial contracts, so as to reduce the impact of significant exchange rate risk. In 2017, the Company adhered to the established strategies and continued to adopt corresponding measures to reduce the impact of fluctuations in the foreign exchange rate. As compared with the end of 2016, the balance of bank borrowings and other borrowings denominated in foreign currency at the end of 2017 increased by RMB344.8 million mainly because our subsidiaries increased cross-border foreign debts with exchange rate risk locked up, thus our actual exchange rate exposure of foreign currency debts was reduced. In 2018, the Company will continue to closely monitor the market and adopt appropriate measures to minimize the impact of foreign currency exchange rate fluctuations.

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 2017, 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. However, due to the combination of the effects of financial deleveraging and adjustment to regulatory policies, the liquidity in China continued to tighten. Market interest rates continued to rise, which exerted certain pressure on our financing cost of newly raised debt. In order to cope with long-term interest rate risk, the Company will moderately add fixed-rate debt to reduce the impact of interest rate fluctuations on the operation of the Company.

In the meantime, in 2017, the Company seized the opportunity to adjust the interest rate structure of a project financing, before the drastic changes in the market environment, which effectively optimized the debt structure and reduced financing costs.

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 without the approval of the competent authorities of the Company.

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 are concerned about 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, 2017, the Group's asset-liability ratio was 71.5%.

Adequate Liquidity

To manage liquidity risks, we monitor and maintain our cash and cash equivalents 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, 2017, we had cash and cash equivalents of RMB10,315.7 million, limit of ultra short-term financing notes of RMB8,000.0 million (available for public offering), limit of medium-term notes of RMB10,000.0 million (available for public offering) and undrawn bank comprehensive credit limit of RMB140,735.0 million.

Maintaining a Good Credit Rating

Maintaining a good credit rating helps lower our cost of financing. In June 2017, 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 given "the gradual commissioning of the nuclear power generating units under construction and the smooth progress of the projects under construction", the rating agency concluded that the Company would "enjoy steady growth in the nuclear power generation capacity in the future and the generating capability would further be strengthened with stronger profitability and smooth financing channels" and maintained our AAA credit rating with stable outlook. We shall continue to maintain our healthy financial positioning and keep good communication with credit rating agencies so as to maintain our sound credit ratings.

Environmental Capital

Our commitment to social responsibility is to continue to provide safe, reliable, clean and economical power 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 here 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 by the Group, refer to 2017 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. Of these, 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. 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” for details of radioactive waste of our NPPs in 2017.

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 Ministry of Environmental Protection, so as to monitor and analyze the environmental media of air, land species and marine organism within a radius of 10 kilometers of our NPPs, 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.

NNSA 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 surrounding area’s environmental radioactivity has not changed from the background that before the NPPs commenced commercial operations, and the biological population from land and sea in this region has not changed either while there was no adverse impact to the environment. According to ongoing monitoring by the Ministry of Environmental Protection, the air-absorbed dose rates of environment around NPPs in operation stay within the fluctuation range of local natural background levels.



Hongyanhe Nuclear Power Station

Social and Relationship Capital

The construction and operation of NPPs have a very extensive effect. We understand that 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 here describe the policies and practices of the Group with respect to the society and the public. Communication between shareholders and investors are set out in the sections headed “Shareholder Value” and “Corporate Governance”. Please refer to 2017 ESG Report published by the Company regarding more information on 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. In 2017, 16 operational events occurred, all of which were deviations without safety significance, and were disclosed in a timely manner.

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 that provide oral and written reports of NPPs’ related information to the main industry regulatory department and the media, takes public inquiries through hotlines, facsimile and email. In 2017, the Company and our NPPs convened a total of 11 press conferences.

Transparent Public Communication

We adhere to transparent communication and constantly explore the open and transparent communication mechanisms, our efforts to promote the science of nuclear power, and help the public understand all aspects, and enhance the public’s confidence in nuclear power.

Participating in exhibitions In 2017, we proactively demonstrated and promoted advanced nuclear power technologies such as HPR1000 by participating in a number of integrated exhibition platforms in China and abroad, such as China International Nuclear Industry Exhibition, China International Hi-Tech Fair and World Expo. During the World Expo 2017, we attracted the attention of heads of energy from many countries and international organizations with hundreds of thousands of visitors participating into the Expo.



Public visiting the display booth of the Company at the China International Hi-Tech Fair



Fangchenggang Nuclear carrying out Nuclear Science “The First Science Class” at nearby schools

Offering courses to schools We continued to carry out Nuclear Science “The First Science Class”. There have been more than 100 primary and secondary schools hosting Nuclear Science “The First Science Class”, covering more than 17,000 students.

Public Open Day We continued to organise “8 · 7 Public Open Day”. As of the end of 2017, the total number of public visiting our nuclear power bases exceeded 600,000. We are open to communicate with the public, and through organizing visits to the nuclear power bases and face-to-face communication between the public and staff, we let the public understand the real nuclear power management of NPP and experience the charm of nuclear power.

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 when achieving our corporate development to build a harmonic relationship with the surroundings.

Targeted poverty alleviation

We carry out the poverty alleviation measures through different channels and by various means, such as industry based poverty alleviation, poverty alleviation through education, poverty alleviation for people’s livelihood, and employment assistance for poverty alleviation so as to help people in poverty-stricken areas to escape from poverty and become prosperous as soon as possible. In 2017, we donated funds to help build a new kiwifruit planting base of 100 acre park in Leye County, Guangxi Zhuang Autonomous Region, around the Fangchenggang Nuclear Power Base. This project will be deployed as the project to develop collective economy in 10 poor villages at Leye County. The stable income obtained through this project will provide recurrent revenue for the development of collective economy in villages, which shall ensure the stable development of the whole village and the escape from poverty as soon as possible.



Kiwifruit modern agriculture demonstrative area in Leye County

Dedicated to social welfare

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

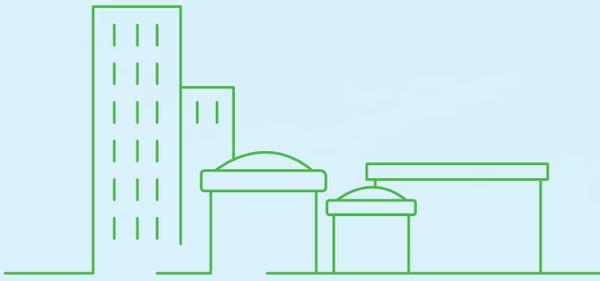
We encourage and support employees to systematize and regularize charitable activities. In 2017, we had more than 12,300 volunteer employees and over 25,000 people participating in public service activities for over 34,600 hours.



Ningde Nuclear holding a recruitment day in a nearby township



Hongyanhe Nuclear employees introduce large scale E-business platforms to help villagers sell fruit



Corporate Governance

92	Board of Directors, Supervisory Committee and Senior Management
101	Corporate Governance Report
128	Directors' Report
142	Audit and Risk Management Committee Report
143	Remuneration Committee Report
146	Nomination Committee Report
148	Nuclear Safety Committee Report
149	Supervisory Committee Report
154	Risk Management Report





Board of Directors, Supervisory Committee and Senior Management



^

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 in March 2014. He has a doctoral degree and is a professor-level senior engineer. Mr. Zhang is entitled to special allowance of the State Council. Mr. Zhang has more than 30 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 Power Holding Co., Ltd.) since August 2010 and a director of CGNPC since March 2014.



^

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 professor-level senior engineer. Mr. Gao is entitled to special allowance of the State Council. Mr. Gao has nearly 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 has been the chairman of the board of directors of Taishan Nuclear since December 2007. 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 ("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. 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. Mr. Shi is entitled to special allowance of the State Council. 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.

Board of Directors, Supervisory Committee and Senior Management



^

Ms. Zhong Huiling

Non-executive Director

Ms. Zhong Huiling (鍾慧玲), born in 1973, was appointed as a non-executive Director in May 2017. She is a master's degree holder and is a senior economist. Ms. Zhong has over 20 years of experience in finance, capital and investment management. Since 2010, Ms. Zhong has successively served as the head of the capital operation department and the asset management department of Guangdong Hengjian Investment Holding Co., Ltd. and general manager (executive director) of Guangdong Hengjian Asset Management Co., Ltd. Ms. Zhong Huiling is the secretary of the board of directors (chief asset manager) of Hengjian Holding Investment Co., Ltd. and the chairman of Guangdong Hengjian Asset Management Co., Ltd..



^

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 China and international registered internal auditor. Mr. Zhang Yong has nearly 20 years of experience in the auditing and accounting fields. From June 2012 to January 2017, Mr. Zhang Yong served as the chief accountant of China Nuclear Fuel Co., Ltd. and has been the chief accountant of China National Nuclear Power Co., Ltd, a nuclear power generation company listed on the Shanghai Stock Exchange (stock code: 601985) since January 2017. Mr. Zhang Yong is currently a director of CNNC Financial Leasing Co., Ltd., CNNC Finance Co., Ltd. and Global Innovation Nuclear Energy Technology 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 professor-level senior engineer. 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.



^

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. Mr. Hu is a senior partner and managing partner of Lifang & Partners in Beijing, 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 has 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 currently serves as an outside director of China Iron & Steel Research Institute Group and Sinosteel Corporation Ltd..

Board of Directors, Supervisory Committee and Senior Management



^

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. 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 PRC and overseas companies and has sound knowledge of advising on foreign direct investment in the PRC. Mr. Siu serves as an independent non-executive director in the following listed companies: CITIC Ltd. (stock code: 267), China Communications Services Corporation Ltd. (stock code: 552), and China International Capital Corporation Limited (stock code:3908), each of which is listed on the Hong Kong Stock Exchange; and 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 Pte. Ltd. in Singapore and Beijing Gao Hua Securities Co., Ltd..



^

Mr. Chen Sui

Chairman of the Supervisory Committee and non-employee representative 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 Sui has a Master's degree and is a senior engineer with over 25 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 October 2006 to April 2007, the general manager of CGN Wind Energy Co., Ltd. from January 2008 to June 2010, the chairman of CGN Wind Energy Co., Ltd. from September 2010 to January 2016, and the Chairman of CGN Solar Energy Development Co., Ltd. and CGN Energy Conservation Industry Development Co., Ltd. from September 2010 to February 2016. 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 September 2010 and also serves as a director of CGN Europe Energy. He has served as the assistant president 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. from November 2007 to December 2010, and served as the deputy chief economist of China Southern Power Grid Co., Ltd. from December 2010 to December 2014.

Board of Directors, Supervisory Committee and Senior Management



^

Mr. Cai Zihua

Employee representative Supervisor

Mr. Cai Zihua (蔡梓華), born in 1965, was appointed as an employee representative Supervisor of the Company in June 2015. He has bachelor's degree and is a senior auditor. Mr. Cai has over 30 years of experience in investment control, finance and auditing. Mr. Cai served as manager of the finance department of Yangjiang Nuclear (planned), manager of the finance department of Yangjiang Nuclear, chief accountant of Yangjiang Nuclear and Taishan Nuclear Power Joint Venture Co., Ltd. from December 2003 to March 2012 and served as chief accountant of Taishan Nuclear Power Joint Venture Co., Ltd. from March 2012 to November 2012. Mr. Cai also served as chief accountant of CGN Engineering from November 2012 to August 2014, and he has been the director of the audit department of the Company since September 2014.



^

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 research librarian at associate researcher level and an accountant. Mr. Wang also has a Chinese law practice qualification certificate and corporate legal counsel 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 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 Committee of the Company from September 2015 to July 2017. Since July 2017, he has been the deputy general manager of the corporate legal affairs department (presiding over the work) and has also been a director of CGN New Energy Holdings Co., Ltd. (a company listed on the Hong Kong Stock Exchange with stock code: 1811) since July 2017.



^

Mr. Gao Ligang

Executive Director and President

The biography of Mr. Gao Ligang is set out in the Executive Director section of this annual report.



^

Mr. Su Shengbing

Vice President

Mr. Su Shengbing (蘇聖兵), born in 1962, was appointed as our Vice President in March 2014. He has a master's degree and is a researcher-level senior engineer. 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 has been an executive director and the general manager of CGN Operations since September 2012. 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 1, 2016.

Board of Directors, Supervisory Committee and Senior Management



^

Mr. Yin Engang

Chief Financial Officer

Mr. Yin Engang (尹恩刚), 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 Engang has over 20 years of experience in finance and auditing. From August 2006 to October 2007, he served as Chief Accountant 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 with stock code: 1811.



^

Mr. Wei Qiyang

Joint Company Secretary and Board Secretary

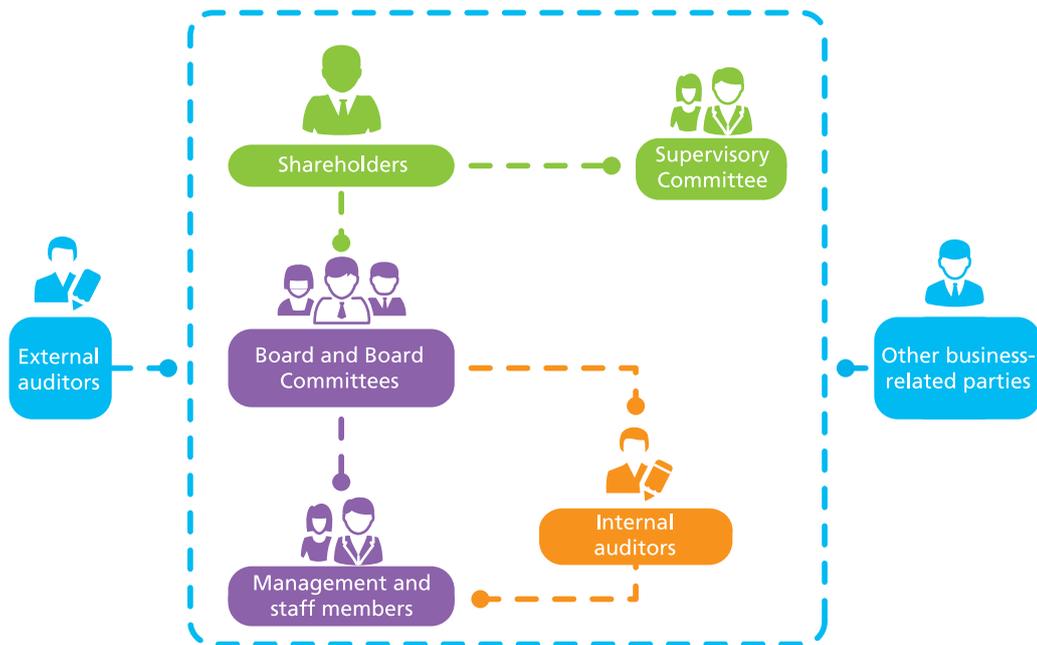
Mr. Wei Qiyang (魏其岩), born in 1967, was appointed as a joint company secretary and board secretary of the Company in March 2016. He has a doctoral degree and is a senior engineer. Mr. Wei has more than 25 years of experience in the nuclear power industry. Mr. Wei served successively as the deputy manager and manager of the planning and contract department of Yangjiang Nuclear from April 2005 to March 2008, the manager of the planning and contract department and contract manager of the project department of Taishan Nuclear from March 2008 to April 2011, and served as the deputy general manager of CGN Uranium Resources Co., Ltd. from April 2011 to February 2016. He also served as vice president of CGN Mining Company Limited, a company listed on the Hong Kong Stock Exchange with stock code: 1164 from 2013 to 2015, and has served as the general manager of the investor relations department of the Company since February 2016.

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, 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, partners, social environment and regulators, also reflect the effectiveness of our corporate governance. We are 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 realisation 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 Rules Governing the Listing of Securities on the Stock Exchange of Hong Kong Limited (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 of Directors 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 on January 6, 2016, which mainly included the matters related to risk management in the duties of the Audit Committee and the addition of matters related to the Nuclear Safety Committee. On March 14, 2016, the Board approved to change the name of the Audit Committee into the Audit and Risk Management Committee.

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 coverage of the Directors' liabilities insurance we have purchased has been extended to all directors of our subsidiaries and major affiliated companies. The maximum indemnity of the insurance policy for the renewal maintains at a relatively high level.
- The Board Secretary of the Company will sort out the actions from the meeting within one week after each board meeting, and continuously follow up the implementation of the actions from the meeting. The Board Secretary of the Company will report to the Board in respect of the implementation of actions at the next board meeting and continue to follow up the actions which are still within the timeframe.
- The Company shall disclose the compliance by its controlling shareholder of its undertakings under the non-competition deed in its annual reports.

- The Company has formulated its Code for Securities Transactions by Directors and Specific Persons on terms no less strict than the Model Code for Securities Transactions by Directors of Listed Issuers (the “**Model Code**”) contained in Appendix 10 to the Listing Rules and its coverage is extended to other “specific persons”, including our Supervisors and senior management. Our Directors and specific persons shall notify the Company in writing in a timely manner and follow strict approval procedures before they deal in the securities of the Company.
- In addition to disclosing Directors’ interests and confirming their compliance with such code, we also disclose the interests of our Supervisors and Chief Executive Officer in our securities and confirmation of their compliance with such code.
- Through roadshows, reverse roadshows and teleconferences and other means, the Company proactively reports the business conditions of the Company to the shareholders, analysts and financial news media, which further broadens the channels of communication with shareholders to enable the shareholders to understand the operation of the Company.
- According to the authorization of the Board of Directors and the working rules of the special committees, the special committees of the Board of Directors 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.

During the year, the Company has complied with all code provisions set out in the Hong Kong Stock Exchange Code with the exception of one of the best practices recommended by the Hong Kong Stock Exchange Code (i.e. a listed company shall announce and release reports on quarterly results). In 2017, we released a total of four quarterly operational briefings to disclose the Company’s on-grid power generation, the operation status of the generating units in operation, the construction progress of the generating units under construction and the major events of the Company which had occurred during the relevant quarters. At the end of each quarter, we also published quarterly financial statements for the domestic market according to the requirement of the local debt securities market, and published overseas regulation announcement on the website of the Hong Kong Stock Exchange to disclose the quarterly financial position on the basis of the PRC Accounting Standards, and to appropriately indicate the differences from the International Financial Reporting Standards. For the benefits of shareholders, we should, on the base of reporting and delivering sufficient information and data to shareholders, reduce costs and enhance efficiency as much as possible. We will review the above considerations and practices should we receive any suggestions and feedback from our shareholders. We will continue to deliver reports to shareholders in a comprehensive and timely manner through various channels, such as all kinds of periodic reports and the Company website.

Corporate Governance Report

Corporate Governance Practices

In 2017, the Company conducted a self-assessment on corporate governance. According to the results of the self-assessment, as at the end of 2017, the Company has complied with all applicable code provisions of the Hong Kong Stock Exchange Code and has exceeded the requirements of the Code in terms of shareholder communication, board operation and other aspects.

Overview of Regulatory Documents on Governance and Key Rules and Regulations

In 2017, we attached 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 give full play to the role of the special committees of the Board of Directors and improve the efficiency of the meetings, we formulated the rules of procedures of each special committee to standardize the procedures and define the responsibilities of the special committees of the Board of Directors.

In 2017, we also prepared the Internal Control Manual, which was reviewed by the Audit and Risk Management Committee and approved at the third meeting of the second session of the Board of Directors, to standardize the management of various business and functions of the Company, break down and implement the internal control responsibilities, reasonably guarantee legal and compliant operation and management, ensure the authenticity of financial reports, ensure the safe and efficient operation of assets, enhance operational efficiency and development, and facilitate the implementation of development strategy.

As of the end of 2017, our regulatory documents on governance and key rules and regulations include:

- Articles of Association of CGN Power Co., Ltd.*
- Procedural Rules of General Meeting of CGN Power Co., Ltd.*
- 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 of CGN Power Co., Ltd.*
- Terms of Reference for the Remuneration Committee of CGN Power Co., Ltd.*
- Terms of Reference for the Nomination Committee of CGN Power Co., Ltd.*
- Terms of Reference for the Nuclear Safety Committee 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.
- Management Rules on Investor Relations of CGN Power Co., Ltd.
- Management Rules on Connected 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)

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

Corporate Governance Report

Major amendments to the Articles of Association

During the year, no amendment was made to the Articles of Association.

Compliance with Domestic Regulatory Requirements

The Corporate Governance Code of the Company and the actual governance practice of the Company were in compliance with the PRC laws and regulations, the relevant regulatory requirements of the China Securities Regulatory Commission (“CSRC”) and the Hong Kong Stock Exchange. The Company will continue to revise and update them on a continuous basis as required by the laws and regulations and regulatory requirements in the future. As of the end of 2017, 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, three non-executive directors hold positions in CGNPC. Mr. Gao Ligang, the executive Director and President, was appointed as the chairman of GNS (a subsidiary of CGNPC) in June 2016. Mr. Yin Engang, the Chief Financial Officer, was a Director of CGN New Energy Holdings Co., Ltd. from March 2015 to January 2018. 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 decrease 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.

In 2015, pursuant to the supplemental agreements to the Custodian Management Framework Agreement, 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) (“**Cangnan Nuclear**”) and CGN Ocean Power Co., Ltd. (中廣核海洋能源有限公司) (“**Ocean Power**”) were included in the companies under custody of the Group.

In 2016, the Group and CGNPC made further amendments to the Custodian Management Framework Agreement, which specified the custodian’s rights and responsibilities in the operation management of the company under custody and the major operation matters of the company under custody, and expanded the scope of custodian management of the Group to CGN Hebei Thermal Power Co., Ltd. (中廣核河北熱電有限公司) (“**Hebei Thermal Power**”).

On March 31, 2017, pursuant to the supplemental agreement to the Custodian Management Framework Agreement (the supplemental agreement was signed in 2016), China Techenergy Co., Ltd. (北京廣利核系統工程有限公司) (“**Techenergy**”) and CGN Power Sales Co., Ltd. (中廣核電力銷售有限公司) (“**Power Sales Company**”) were included in the companies under custody of the Group.

As of December 31, 2017, the target companies under custody of the Group 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), Huizhou Nuclear, Cangnan Nuclear, Ocean Power, Hebei Thermal Power, Techenergy and Power Sales Company.

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 prior to the Listing, 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.

As of the date of this Annual Report, pursuant to the non-competition deed, the Company completed the acquisition of Taishan Nuclear project in 2015 and the acquisition of Fangchenggang Nuclear, Lufeng Nuclear and CGN Engineering in 2016. In 2016, 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 station construction project located in the UK. On March 8, 2018, the Board of Directors (including the independent non-executive Directors) approved the acquisition of Ocean Power, Hebei Thermal Power and Power Sales Company from CGNPC.

The independent non-executive Directors will closely monitor the performance of CGNPC under the non-competition deed and the management of the Company will report to the Board on the relevant matters as and when appropriate. CGNPC confirmed that no breach of non-competition deed 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;
- attending or appointing proxies to attend and voting at general meetings;
- supervising the Company's operating activities and making suggestions or inquiries;
- transferring shares in accordance with the laws, administrative regulations and the Articles of Association;
- 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 and the Hong Kong Stock Exchange after the general meetings.

We are of the view that effective communication with investors is of utmost importance in enhancing investor relations and understanding of the Group's business, performance and strategies by the investors. We also firmly believe in the importance of timely and adequate disclosure of the Company's information to shareholders and investors for making investment decisions. For the policies and methods of communication with

shareholders and investors, please refer to the section "Shareholder Value". In order to facilitate effective communication, the Company has adopted the Shareholders Communication Policies for the purpose of establishing a mutual relationship and communication between us and the shareholders, and a website has been set up (www.cgnp.com.cn) to publish the latest information, financial information, corporate governance practice and other information about its business operations and developments on the website for viewing by the public.

The AGM of the Company provides an opportunity for communication between shareholders and Directors directly. The Chairman of the Company and the chairmen of various Board Committees will attend the AGM and reply to questions raised by shareholders. The external auditors of the Company will also attend the AGM and reply to questions about audit practices, preparation and contents of the auditor's report, accounting policies and independence of auditors.

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 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. The relevant EGM shall be held within two months after such request has been made.

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 10 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 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, 2016	As of December 31, 2017
Total number of registered shareholders	4,116	3,919
Registered shareholders of H shares	4,113	3,916

Shareholder structure

Nature of shares	Shareholders	Number of shares held (shares)	Approximate percentage of the Company's total issued shares (%)
Domestic shares	CGNPC	29,176,641,375	64.20
	Guangdong Hengjian Investment Holdings Co., Ltd. ("Hengjian Investment")	3,428,512,500	7.54
H shares	China National Nuclear Corporation	1,679,971,125	3.70
	CLP Nuclear Power Company Limited	142,434,000	0.31
	National Council for Social Security Fund ("NSSF")	1,014,910,000	2.23
	Shareholders of other issued and sold H shares	10,006,281,000	22.02

The Hong Kong Stock Exchange has granted us a waiver from strict compliance with the requirements under the Rule 8.08(1) (d) of the Listing Rules. As described in the section headed "Waivers from Strict Compliance with the Listing Rules" of the Prospectus, the minimum public float of the Company is 24.25%. Our current minimum 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.

The Board shall convene an EGM within two months after the occurrence of any of the following events:

- where the number of Directors is less than the number stipulated in the Company Law of the PRC or less than two-thirds of the number specified in the Articles of Association;
- where the unrecovered losses of the Company amount to one-third of the total amount of its paid-up share capital;
- where shareholder, or shareholders who individually or jointly hold, 10% or more of the Company's issued voting shares make request(s) in writing for convening of an EGM;
- whenever deemed necessary by the Board or as requested by the Supervisory Committee;
- other circumstances provided for by relevant laws, administrative regulations, regulations of the authorities and the Articles of Association.

The shareholdings referred to item 3 above shall be calculated on the basis of the number of shares held as of the date of written request from the shareholders.

On May 24, 2017, we held the 2016 AGM in Hong Kong to ensure that H Shareholders would be able to conveniently attend the AGM. 354 shareholders or their authorised proxies attended the 2016 AGM, representing 38.35 billion shares which accounted for 84.4% of the total share capital of the Company.

The resolutions considered and passed at the 2016 AGM included:

by Ordinary Resolution:

- Report of the Board of Directors for the year 2016
- Report of the Supervisory Committee for the year 2016
- 2016 Annual Report
- Audited financial report for the year 2016
- Profit distribution plan for the year 2016
- Investment plan and capital expenditure budget for the year 2017
- Re-appointment of auditors for the year 2017
- Re-election and appointment of Directors
- Re-election and appointment of Supervisors
- Remuneration of Directors and Supervisors for the year 2017

by Special Resolution:

- The grant of a general mandate to issue shares

We are serious about the organization and convening of each general meeting. All Directors attended the AGM with the presence of witnessing lawyer(s). At the AGM, the Board of Directors replied to questions of shareholders' concern. 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 2017 AGM is expected to be held in May 2018.

Details of the questions raised by the shareholders and the relevant replies at the AGM are as follows:



Will the Company consider share repurchase when funds required become available?

We endeavor to increase shareholder value while strengthening the management of the Company in different ways including value management measures such as share repurchase. However, the public shareholding of the Company has reached the bottom line of the minimum public float required by the Hong Kong Stock Exchange, which leaves no room for a repurchase for now.



Can the management provide any updates on the overseas projects of the Company?

Currently, all projects of the Company in operation or under construction are in China. Under the "Belt and Road" initiatives, the development and expansion of all overseas projects are conducted by CGN Group, and we will provide relevant support if necessary.



Will the Company consider to reduce the relevant percentage of share issuance under the general mandate to 10%?

The general mandate granted by the shareholders is only a potential tool available to the Company, the exercise of which is not a must, and the Company will have thorough communication with the shareholders before the exercise of such mandate without jeopardizing the benefits of the shareholders.



Corporate Governance Report

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. Pursuant to the Articles of Association, the Board of the Company comprises nine Directors, among which, 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.

As of 31 Decemeber, 2017, the Board comprises Zhang Shanming (張善明) (Chairman of the Board and non-executive Director), Gao Ligang (高立剛) (executive Director), Tan Jiansheng (譚建生) (non-executive Director), Shi Bing (施兵) (non-executive Director), Zhong Huiling (鍾慧玲) (non-executive Director), Zhang Yong (張勇) (non-executive Director), Na Xizhi (那希志) (independent non-executive Director), Hu Yiguang (胡裔光) (independent non-executive Director) and Francis Siu Wai Keung (蕭偉強) (independent non-executive Director). The Directors of the Company have extensive experience in management in the power industry, financial and accounting management, 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.

On May 24, 2017, members of the second session of the Board and members of the second session of the Supervisory Committee were elected at the 2016 AGM of the Company. On the same date, Mr. Zhang Shanming was elected as the Chairman of the Board of the Company in the first meeting of the second session of the Board. Respective chairmen and members were elected for the four special committees (namely Audit and Risk Management Committee, Remuneration Committee, Nomination Committee and Nuclear Safety Committee) under the Board of the Company, details of which are set out in the reports of the special committees. Ms. Zhong Huiling was elected as a non-executive Director of the second session of the Board of the Company, which further improved the Board diversity.

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 2017 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 92 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 example, our executive Director and President Mr. Gao Ligang abstained from voting during the consideration of the Resolutions on Appointment of the President of the Company and the Resolution on Approval of the 2016 Performance Assessment Result of the President of the Company and the 2017 Performance Assessment Result of the President of the Company.

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;
- authorising 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.

Corporate Governance Report

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;
- 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.

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 142 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;
- 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 (if any), 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 a lot of 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;
- 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 complete other tasks delegated by the Board;
- 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 143 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 2017. 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 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;
- To ensure that none of the Directors or any of his/her associates will be involved in deciding on his/her own remuneration.

Corporate Governance Report

Nomination Committee

Please refer to the “Nomination Committee Report” set out on page 146 of this Annual Report for details of the Nomination Committee, including its composition, duties 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 members of the Board, 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, in particular the Chairman of the Board and the general manager;
- 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;
- To fulfill such other duties and responsibilities delegated by the Board.

Nuclear Safety Committee

Please refer to the “Nuclear Safety Committee Report” set out on page 148 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 independent 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;
- 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 8 Board meetings (5 regular Board meetings and 3 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.	Name of meeting	Date	Mode
1	Sixteenth meeting of the first session of the Board of Directors	January 5, 2017	Physical
2	Seventeenth meeting of the first session of the Board of Directors	March 15, 2017	Physical
3	Sixth extraordinary meeting of the first session of the Board of Directors	April 6, 2017	Physical
4	First meeting of the second session of the Board of Directors	May 24, 2017	Physical
5	Second meeting of the second session of the Board of Directors	August 28, 2017	Physical
6	First extraordinary meeting of the second session of the Board of Directors	October 16, 2017	By teleconference
7	Third meeting of the second session of the Board of Directors	November 28, 2017	Physical
8	Second extraordinary meeting of the second session of the Board of Directors	December 14, 2017	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:

- 2017 Operational Plan
- 2017 Internal Audit Plan
- Consideration and approval of budget (construction cost) of nuclear power projects
- Election of Chairman of the second session of the Board
- Election of the chairmen of special committees of the second session of the Board
- Amendment to the Accounting System
- Internal Control Manual (First Edition)
- Implementation Plan of the Second Batch of Share Appreciation Rights Incentive Scheme

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	Chairman of the Board and Non-executive Director Member of the Nomination Committee Chairman of the Nuclear Safety Committee	7/8	—	—	3/3	2/2	0/1
Gao Ligang	Executive Director and President Member of the Nuclear Safety Committee	8/8	—	—	—	2/2	1/1
Tan Jiansheng ^(a)	Non-executive Director	4/5	—	—	—	—	1/1
Shi Bing	Non-executive Director	5/8	—	—	—	—	0/1
Xiao Xue ^(b)	Non-executive Director Member of the Remuneration Committee Member of the Nuclear Safety Committee	0/3	—	0/2	—	0/1	0/1
Zhong Huiling ^(c)	Non-executive Director Member of the Remuneration Committee Member of the Nuclear Safety Committee	5/5	—	3/3	—	1/1	—
Zhuo Yuyun ^(d)	Non-executive Director Member of the Audit and Risk Management Committee Member of the Nuclear Safety Committee	3/3	2/2	—	—	1/1	1/1
Zhang Yong ^(e)	Non-executive Director Member of the Audit and Risk Management Committee Member of the Nuclear Safety Committee	5/5	2/2	—	—	1/1	—
Na Xizhi	Independent non-executive Director Chairman of the Nomination Committee Member of the Audit and Risk Management Committee Member of the Nuclear Safety Committee	7/8	3/4	—	3/3	2/2	1/1
Hu Yiguang	Independent non-executive Director Chairman of the Remuneration Committee Member of the Nomination Committee	8/8	—	5/5	3/3	—	1/1
Francis Siu Wai Keung	Independent non-executive Director Chairman of the Audit and Risk Management Committee Member of the Remuneration Committee	8/8	4/4	5/5	—	—	1/1

(a) Mr. Tan Jiansheng was elected as a non-executive Director at the 2016 AGM with effect from May 24, 2017.

(b) Mr. Xiao Xue retired as a non-executive Director of the Board after the 2016 AGM due to changes in work and expiration of his term of office, with effect from May 24, 2017.

(c) Ms. Zhong Huiling was elected as a non-executive Director at the 2016 AGM with effect from May 24, 2017.

(d) Mr. Zhuo Yuyun retired as a non-executive Director of the Board after the 2016 AGM due to changes in work and expiration of his term of office, with effect from May 24, 2017.

(e) Mr. Zhang Yong was elected as a non-executive Director at the 2016 AGM with effect from May 24, 2017.

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, as well as the progress of our major issues. Since 2016, we have added financial information of the Company and industry information in the monthly management report. 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.

Directors during the Reporting Period have received the following trainings in relation to the roles, functions and duties of directors of listed companies for the year ended December 31, 2017.

Director	Type of training		
	Reading Materials	Specific Training	On-site Inspections
Zhang Shanming	√	√	
Gao Ligang	√	√	
Tan Jiansheng	√	√	
Shi Bing	√	√	
Xiao Xue ^(a)	√	√	
Zhong Huiling	√	√	√
Zhuo Yuyun ^(b)	√	√	
Zhang Yong	√	√	√
Na Xizhi	√	√	√
Hu Yiguang	√	√	√
Francis Siu Wai Keung	√	√	√

Note:

- (a) Mr. Xiao Xue retired as a non-executive Director of the Board after the 2016 AGM due to changes in work and expiration of his term of office, with effect from May 24, 2017.
- (b) Mr. Zhuo Yuyun retired as a non-executive Director of the Board after the 2016 AGM due to changes in work and expiration of his term of office, with effect from May 24, 2017.

Reading Materials: Company Management Monthly Report (a total of 12 issues)

Corporate Governance Report

Specific Trainings: The Company has organized two specific trainings for Directors in 2017, including:

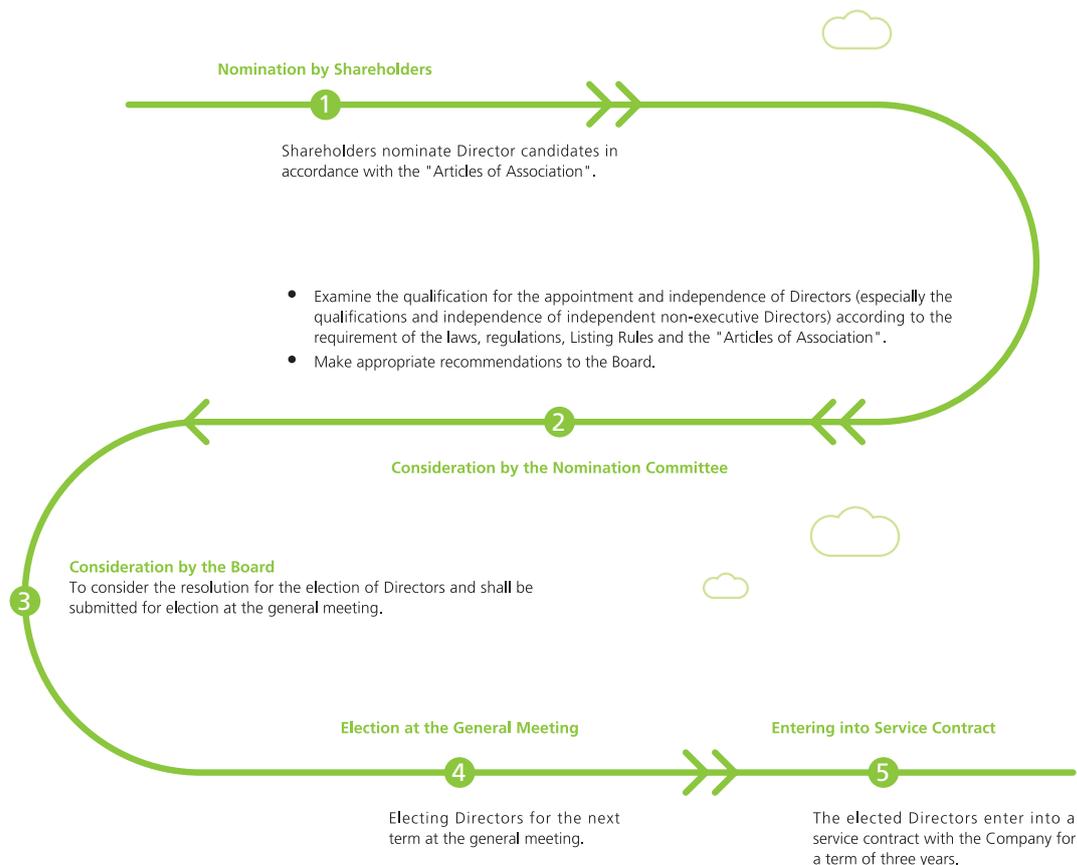
- On May 24, 2017, the Specific Training on Duties and Responsibilities for Newly Appointed Directors and Supervisors given by the legal advisors of the Company.
- On November 28, 2017, the seminar of “Power System Reform and the Guangdong Market” given by a professor from Tsinghua University.

On-site Inspections: In 2017, the Directors of the Company participated in 4 inspections related to NPPs, including:

- From July 11 to 13, 2017, the Directors and Supervisors conducted on-site inspection in Yangjiang Nuclear Power Base and Taishan Nuclear Power Base.
- From August 20 to 30, 2017, the Directors and Supervisors conducted on-site inspection in Daya Bay Nuclear Power Base.
- From October 17 to 19, 2017, the Directors and Supervisors conducted on-site inspection in Hongyanhe Nuclear Power Base.
- From November 15 to 17, 2017, the Directors and Supervisor conducted on-site inspection in Fangchenggang Nuclear Power Base.

Selection, 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. In 2017, 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. The implementation of such working process further standardized the selection, appointment and re-election of Directors of the Company, and facilitated the selection of the new session of the Board.



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 mainland China, 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. 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 and the Hong Kong Companies Registry within the prescribed period.

The Board Office of the Company will regularly remind Directors to disclose 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.

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, 2017.

Model Code for Securities Transactions

The Company has 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, the Directors, Supervisors and senior management have confirmed that they have complied with the above two codes for the year 2017.

Corporate Governance Report

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. 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, 2017 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 consolidated financial statements is contained in "Independent Auditor's Report" of this Annual Report on page 164.

Supervisory Committee

Please refer to the "Supervisory Committee Report" as set out in this Annual Report on Page 149 for details of the Supervisory Committee, including its composition, duties and responsibilities and the annual work summary for the year.

Company Secretary

The Board has appointed Mr. Wei Qiyuan as a joint company secretary. Mr. Wei is also the Board secretary of the Company. Pursuant to the requirements under the Listing Rules, we have also engaged Ms. Mok Ming Wai from TMF Hong Kong Limited as the joint company secretary to provide assistance to Mr. Wei in conducting his work. The 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 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, Mr. Wei and Ms. Mok, had taken not less than 15 hours of relevant professional training during the financial year ended December 31, 2017.



Mr. Wei Qiyuan was awarded the "Best Board Secretary" by China Financing in 2017.

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.

The company has established rules and regulations on disciplinary offences of employees. The “Code of Conduct for Listed Companies”, “Implementation Rules for the Implementation of the Eight Principles of the Central Government”, and Administrative Measures for Integrated Supervision and Administrative Measures for the Supervision of Discipline, are also used by the Company to deal with incidents related to disciplinary offences. All management staff and employees must strictly comply therewith.

In 2017, we further optimized and improved the procedures for investigation and handling of non-compliance with relevant requirements and disciplines, and took various measures to further strengthen the comprehensive supervision and

management of the Company, thereby effectively improving the system protection. Meanwhile, we strengthened promotion of honest practices among the staff through various methods, which were well received by the staff. In 2017, the Company found 12 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 our management. The Company has established appropriate whistleblower channels and encourages employees and related third parties (such as suppliers) to report any misconduct, malpractices or irregularity in any matters related to the Company confidentially.

We have expanded the applicable scope of the Company’s Code for Securities Transactions by Directors and Specific Persons to cover Senior Management. According to specific inquiries made by the Company, all senior management confirmed that they have been in compliance with the relevant requirements throughout the year ended December 31, 2017.

The principles and details of the remuneration of senior management officers are set out in the “Remuneration Committee Report” on page 144 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 68 of this Annual Report. During 2017, the Company has regularly organized management to participate in a series of trainings including safety training for all staff and training for the news spokesman of the Company.

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 56 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;
- Specific reviews or audits of areas of concern identified by management or the Audit and Risk Management Committee.

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

During 2017, the audit department of the Company conducted specific audit on key areas of management such as internal controls, safety management and corporate governance of the Company as well as areas of concern identified by the management, and issued reports to senior management officers.

External Auditors

Deloitte Touche Tohmatsu and Deloitte Touche Tohmatsu Certified Public Accountants LLP have been appointed as international auditors and PRC auditors of the Company, to respectively audit the Company's consolidated financial statements for the year ended December 31, 2017 prepared in accordance with IFRS and China Accounting Standards, and their appointment term lasts to the

end of the 2017 AGM. Deloitte Touche Tohmatsu has audited the Company's 2017 consolidated financial statements prepared in accordance with IFRS by the Company. The auditing expenses for the Group in 2017 were RMB7.44 million and the international and domestic auditors of the Company did not provide non-auditing services.

Other Stakeholders

Other stakeholders of the Company include customers, partners, social environment and regulators, details of which are set out in the 2017 ESG Report of the Company.

Internal Control

Risk Management

The Company has established a comprehensive risk management system 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.

In 2017, the Board of the Company considered and approved the Internal Control Manual of CGN Power Co., Ltd. (First Edition). The manual is comprised of general rules section, control activities section and assessment section. 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, ensures the authenticity of financial reports, ensures the safe and efficient operation of assets, enhances operational efficiency and development, and facilitates the implementation of development strategy.

Key Elements of Internal Control	Initiatives
Internal Environment	The corporate governance structure specifies the management authority at various levels Internal organizations and posts clearly define the allocation of responsibilities and powers The internal supervision system Corporate strategies Integrity and moral values and corporate culture Competency of staff
Risk Assessment	Timely identifying and systematically analyzes risks associated with the realization of internal control objectives in the process of operation activities and reasonably determines strategies in response to risks
Control Activities	Taking corresponding control measures and formulating internal rules, systems and procedures based on the risk assessment results to ensure the implementation of control measures Covering major business areas such as funding activities, procurement, sales, engineering projects management, guarantee, research and development, business outsourcing, asset management and financial reporting 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
Information and Communication	Timely and accurately collecting and communicating information in relation to internal controls to ensure effective communication of information within the enterprise or between the enterprise and external parties
Internal Supervision	Regularly evaluating the implementation of systems and procedures Independent internal monitoring and auditing activities Self-assessment of internal control system on a regular basis

Corporate Governance Report

Internal control evaluation

According to the relevant provisions of the Corporate Governance Code of CGN Power (《中國廣核電力股份有限公司企業管治守則》), we have prepared the Internal Control Assessment Proposal for 2017 of the Company (the “Internal Control Assessment Proposal”), which clearly provides the evaluation covers the full 2017 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 2017.

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 2017. 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 14 major subsidiaries, which covered all business segments and major business areas of the Company; as of December 31, 2017, the aggregate net assets and operating revenue of the aforesaid companies represented approximately 74.9% and 90.3% 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, safety management, construction management, financing activities, etc. 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, 2017) 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, 2017) 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.

Monitoring inside information

The measures for the management and control of inside information by the Company are as follows:

- 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 of CGN Power Co. Ltd. (《中國廣核電力股份有限公司信息披露管理制度》) and its ancillary procedures have been formulated in order to regulate the management requirements and handling procedures of inside information.
- The relevant training on information disclosure has been provided to the Company's management, subsidiaries and affiliated companies on a sustained basis.

In 2017, we carried out training on information disclosure through various ways such as face-to-face training, video communication, internet learning and mobile learning, covering almost 90% of the staff. We have also conducted random inspection on the implementation of relevant systems and procedures information disclosure and found no non-compliance.

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 and consider the opinions and recommendations from the investors, thereby providing powerful support to the long-term and sustainable development of the Company.

Corporate Governance

Directors' Report

Operations

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

Consolidated Financial Statements

For the Group's consolidated financial statements for the financial year ended December 31, 2017, please refer to page 171 to 325.

Five-Year Financial Highlights

The 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 Statement of Profit or Loss and Other Comprehensive Income" on page 171.

Details of dividend payments and policy are set out in the "Shareholder Value" in this Annual Report on page 13.

Business Review and Performance

For the analysis of business performance and its impact factors in 2017, please refer to the "Finance, Assets and Investment" from page 18 to 31 and the "Business Performance and Outlook" from page 34 to 53.

For the major risks and uncertain factors faced by the Group, please refer to the "Risk Management Report" of this Annual Report from page 154 to 161.

The business outlook of the Group is discussed in different parts of this Annual Report, including the "President's Review" from page 9 to 12, the "Business Performance and Outlook" from page 34 to 53, and the "Risk Management Report" from page 154 to 161.

Please refer to the section headed "Human Capital" from page 68 to 78 in this Annual Report for details of the relationship between the Group and its employees.

The relationships between the Group and its connected persons of major business (customers and suppliers) are set out in the "Business Performance and Analysis" from page 36 to 52 of this Annual Report and the "Directors' Report" of "Corporate Governance" of this Annual Report from page 134 to 135.

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 12, the "Business Performance and Outlook" from page 36 to 52, the "Corporate Governance Report" from page 101 to 127, and the "Supervisory Committee Report" from page 149 to 153.

Save as disclosed in "Events after the Reporting Period" on page 136, there is no event that had a significant impact on the Group's operation, financial and trading prospects from January 1, 2018 to the date of this Annual Report.

The above discussions form part of the Directors' Report.

Assets

Property, Plant and Equipment

Additions to property, plant and equipment of the Group for the year amounted to a total of RMB18,825.3 million. In 2016, a total amount of RMB21,857.4 million was added to property, plant and equipment. Details of changes in property, plant and equipment of the Group are set out in Note 14 to the Consolidated Financial Statements.

Bank Borrowings and Other Borrowings

The total borrowings of the Group as of December 31, 2017 amounted to RMB221,565.7 million (2016: RMB170,494.5 million). Details of borrowings are set out in Notes 33, 34 and 35 to the Consolidated Financial Statements.

Finance Costs Capitalized

Finance costs amounting to RMB3,906.3 million (2016: 3,973.1 million) were capitalized by the Group during the year, the details are as set out in Note 8 to the Consolidated Financial Statements.

Major Subsidiaries

For the details of the Company's major subsidiaries, please refer to Note 50 to the Consolidated Financial Statements and the "Business at a glance for the year" on page 4.

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.

Before full exercise of the over-allotment option under the global offering, the registered share capital of the Company increased to RMB44,125,000,000, being made up of 34,417,500,000 Domestic Shares and 9,707,500,000 H Shares, representing approximately 78% and 22% of the registered share capital, respectively.

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.

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

During the year ended December 31, 2017, 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, 2017, neither the Company nor any of its subsidiaries have entered into equity-linked agreements.

Corporate Governance Directors' Report

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

	December 31, 2016	Increase/ (decrease) due to changes during the Reporting Period	December 31, 2017
Domestic Shares	34,285,125,000	0	34,285,125,000
H Shares	11,163,625,000	0	11,163,625,000
Total number (Shares)	45,448,750,000	0	45,448,750,000

Corporate Governance

The Company's corporate governance principles and practices are set out in the "Corporate Governance Report" of this Annual Report on page 101.

Particulars of Board Meetings

The details of 2017 Board meetings of the Company are set out in "Particulars of Board Meetings" on page 117 of this Annual Report.

Directors

The current 9 Directors of the Company were appointed as the members of the second session of the Board of the Company at the 2016 AGM held on May 24, 2017.

According to the Articles of Association, the terms of office of Directors of the Company shall be three years. Directors must retire by rotation at least once every three years and may be re-elected for continuous appointment. The tenure of the first session of the Board expired on March 23, 2017. Upon the listing on the Hong Kong Stock Exchange, the Company has formulated the Board Diversity Policy, to enable the shareholders who are entitled to recommend candidates for appointment of directors to fully consider the requirements of board diversity, thereby striving to establish a Board comprising of members with diverse backgrounds. Subject to the relevant laws and regulations, as considered at the sixteenth meeting of the first session of the Board of the Company, Directors of the first session of the Board continued to perform their duties until the second session of the Board were elected at the 2016 AGM.

According to the Listing Rules and the internal governance procedures, the Company carefully planned and organized the selection of the new session of the Board. Through various procedures including recommendation by shareholders,

qualification examination and selection by the Nomination Committee and consideration by the Board, the second session of the Board of the Company was selected on May 24, 2017. In particular, Mr. Zhang Shanming, Mr. Tan Jiansheng, Ms. Zhong Huiling and Mr. Zhang Yong were selected as the non-executive Directors of the second session of the Board of the Company, Mr. Gao Ligang was selected as an executive Director of the second session of the Board of the Company, Mr. Na Xizhi, Mr. Hu Yigang and Mr. Francis Siu Wai Keung were selected as the independent non-executive Directors of the second session of the Board of the Company. The selection of Ms. Zhong Huiling as a non-executive Director further strengthened the Board diversity.

The biographical details of Directors are set out in "Board of Directors, Supervisors and senior management" on page 92 of this Annual Report. Details of Directors' remuneration are set out in "Remuneration Committee Report" of this Annual Report on page 144.

Supervisors

The biographical details of the current supervisors are set out in "Board of Directors, Supervisory Committee and Senior Management" on page 96 of this Annual Report. Details of Supervisors' remuneration are set out in "Remuneration Committee Report" of this Annual Report on page 144.

Senior Management

At the seventeenth meeting of the first session of the Board of the Company, Mr. Gao Ligang was re-appointed as the President of the Company, Mr. Su Shengbing was re-appointed as the Vice President of the Company, and Mr. Wei Qiyang was re-appointed as a Joint Company Secretary and the Board Secretary, all of which shall serve a term of three years with effect from March 24, 2017.

At the first interim meeting of the second session of the Board of the Company, Mr. Yin Engang was appointed as the Chief Financial Officer of the Company for a term of three years with effect from October 16, 2017.

The biographical details of the senior management are set out in "Board of Directors, Supervisory Committee and senior management" on page 99 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 145.

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, 2017.

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 of December 31, 2017, 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, 2017:

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/Interest of controlled corporation	29,176,641,375 Domestic Shares	85.10%	64.20%
Hengjian Investment	Beneficial owner/Interest of controlled corporation	3,428,512,500 Domestic Shares	10.00%	7.54%
NSSF	Beneficial owner	1,014,910,000 H Shares	9.09%	2.23%

Corporate Governance

Directors' Report

Interests of Other Persons

As of December 31, 2017, 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 136, 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 controlling shareholder or its subsidiaries have been disclosed in "Connected Transactions" in this Annual Report on page 136.

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

For the year ended December 31, 2017, 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, 2017, 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
Mr. Zhang Shanming	Chairman of the Board and non-executive Director	General manager and Director of CGNPC
Mr. Gao Ligang	executive Director	Chairman of the board of GNS
Mr. Tan Jiansheng	non-executive Director	Deputy general manager of CGNPC
Mr. Shi Bing	non-executive Director	Deputy general manager of CGNPC

Controlling Shareholder's Non-competition Undertakings

Save as those disclosed in Prospectus, 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 in the PRC or overseas, 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.

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 136 in this Annual 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, 2017, our reserves available for distribution to our equity holders amounted to approximately RMB16,195.2 million (representing retained earnings of RMB16,195.2 million).

Management Contracts

For the year ended December 31, 2017, 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 96.3% of the Group's total revenue. Below is the information of the top five customers in descending order:

1. China Southern Power Grid Co., Ltd. ("CSG") (representing 59.4% of our total revenue): The Group did not hold any interest in this company. CSG is a company under the State-owned Assets Supervision and Administration Commission of the State Council. 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, we sold the electricity generated by the NPPs in Daya Bay, Ling'ao, Lingdong, Yangjiang and Fangchenggang to Guangdong Power Grid Co., Ltd. and Guangxi Power Grid Co., Ltd. under the CSG.
2. Fujian Electric Power Co., Ltd. (representing 20.0% 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, we sold the electricity generated by the NPPs in Ningde, Fujian to Fujian Electric Power Co., Ltd.
3. Hong Kong Nuclear Investment Co., Ltd. ("HKNIC") (representing 11.7% of our total revenue): This company is a subsidiary of CLP Holdings Ltd., 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, we sold some of the electricity generated by the Daya Bay Nuclear Power Station to HKNIC.
4. Hongyanhe Nuclear (representing 4.2% of our total revenue): Hongyanhe Nuclear is an associate of the Group, and is responsible for the investment, construction and operation of Liaoning Hongyanhe Nuclear Power Station. We offer nuclear station construction and design, training, repairing, technical research and professional support to Hongyanhe Nuclear.
5. Huizhou Nuclear (representing 1.0% of our total revenue): Huizhou Nuclear is a connected person of the Group, and is wholly-owned by CGNPC. Huizhou Nuclear is a company managed by the Group as entrusted by CGNPC, and is responsible for the investment, construction and operation of Huizhou Nuclear Power Station. We provide engineering, training, technical research and professional support services to Huizhou 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 39.5% of the Group's sales and services costs (excluding depreciation). Below is the information of the top five suppliers in descending order:

1. CGNPC Uranium Resources Co. Ltd. ("**CGN Uranium**") (representing 19.3% of the Group's sales and services costs (excluding depreciation)): CGN Uranium is a connected person of the Group and is wholly-owned by CGNPC, and its major business is to supply full-cycle nuclear fuel and technical support to NPPs. We purchase nuclear fuel and related services through CGN Uranium.
2. China Nuclear Energy Industry Corporation ("**CNEIC**") (representing 11.0% of the Group's sales and services costs (excluding depreciation)): The Group did not hold any interest in this company. CNEIC mainly engages in the import and export trade of uranium products and nuclear power technology and equipment, such as providing technology and equipment and supplying fuel to the major NPPs in China. We purchased processing service of enriched uranium used in producing nuclear fuel components from CNEIC.
3. CNNC Jianzhong Nuclear Fuel Co., Ltd., ("**CNNC Jianzhong**") (representing 5.5% of the Group's sales and services costs (excluding depreciation)): the Group did not hold any interest in this company. This company is a product base of nuclear fuel components using the condensation reflux technology in China. We purchased processing service of nuclear fuel components from CNFCC.
4. China Nuclear Industry Maintenance Co., Ltd. ("**CNIMC**") (representing 1.9% of the Group's sales and services costs (excluding depreciation)): The Group did not hold any interest in this company. CNIMC is a professional company specialized in the nuclear projects maintenance business. It mainly provides services such as major maintenance, daily repair, engineering and technical support to us.
5. CGN Services Group (representing 1.8% of the Group's sales and services costs (excluding depreciation)): CGN Services Group is a connected person of the Group and is wholly-owned by CGNPC, and mainly offers food and beverage, logistics, electrical and mechanical services as well as water operation and maintenance to us.

Save as disclosed above, during the year, 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 2017 ESG Report issued by the Company for more information.

Exchange Rate

For the year ended December 31, 2017, 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 84 in this Annual Report.

Corporate Governance

Directors' Report

Events after the Reporting Period

On February 11, 2018, the plan for the A Share Offering was considered and approved by the Board of the Company, and will be submitted to the extraordinary general meeting, H Shareholders' Class meeting and domestic Shareholders' Class meeting for consideration and approval. In addition to obtaining approval by shareholders, the plan for the A Share Offering is also subject to approval by the CSRC and other relevant regulatory authorities. Pursuant to the plan, the par value per A Share will be RMB1 for this offering, with an offering size not exceeding 5,049,861,100 shares. Proceeds raised from the A Share Offering will be used for the construction of Yangjiang Units 5 and 6 and Fangchenggang Units 3 and 4 and other nuclear power units, and replenishment of the Group's working capital. Assuming full issuance of 5,049,861,100 A Shares, it will represent approximately 10% of the total issued shares of the Company immediately after issuance. For more details, please refer to the Company's relevant announcement in February 2018 and the relevant circular in March 2018.

According to the investment agreement entered into between the Company and Shenzhen Guotong, the Company and Shenzhen Guotong established a company to hold a 61% equity interest in Fangchenggang Nuclear. The Company held a 60% equity interest in such company and consolidated it into its consolidated financial statements. Such company was established on January 10, 2018, with the procedures of the transfer of the relevant equity interest completed on February 11, 2018.

On March 8, 2018, the Board considered and approved the proposal (the "Proposal") of acquiring the equity interests of three companies, including Ocean Power. Pursuant to the Proposal, the Company will acquire 100% equity interests of Ocean Power and 100% equity interests of Hebei Thermal Power held by CGNPC and 100% equity interests of Power Sales Company held by 深圳市能之匯投資有限公司 Shenzhen Nengzhihui Investment Co., Ltd. in cash, while the equity transfer price shall be determined based on the valuation of the companies to be filed with relevant authority and the final price payable is subject to adjustments during the interim period. For details, please refer to the relevant announcement dated March 8, 2018 of the Company.

Connected Transactions

In 2017, 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 2017, 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

In 2017, we did not enter into any agreements with any connected persons in respect of any one-off connected transactions which require disclosure.

Continuing Connected Transactions

Due to the fact that: (1) CGNPC owns a 64.20% equity interest in the Group; (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. During 2017, the continuing connected transactions had been carried out as follows:

Nature of Transaction	Annual Cap for 2017 (RMB'000)	Actual Transaction Amount for 2017 (RMB'000)
General Services Framework Agreement ⁽¹⁾		Payment to the CGN Group:
	2,154,460.00	1,639,888.26
Technical Support and Maintenance Services Framework Agreement ⁽²⁾		Receipt from the CGN Group:
	141,331.00	104,679.32
Supplemental Agreement to the Engineering Services Framework Agreement ⁽³⁾		Payment to the CGN Group:
	989,929.00	713,254.04
Renewed Financial Services Framework Agreement ⁽⁴⁾		Receipt from the CGN Group:
	482,897.00	51,267.58
Supplemental Agreement to the Nuclear Fuel Supply and Services Framework Agreement ⁽⁵⁾		Receipt from the CGN Group:
	7,314,504.00	812,859.42
Electricity Supply Arrangement under the Joint Venture Contract ⁽⁶⁾		Payment to the CGN Group in relation to settlement, entrustment loans and other financial services:
	19,500.00	3,581.59
		Maximum daily balance of deposits placed by our Group with the CGN Group and interest income:
	25,428,000.00	15,173,028.32
	Maximum daily balance of loans provided by the CGN Group to our Group:	
	36,487,000.00	16,220,195.63
Supplemental Agreement to the Nuclear Fuel Supply and Services Framework Agreement ⁽⁵⁾		Payment to the CGN Group:
	6,925,375.00	3,419,019.02
Electricity Supply Arrangement under the Joint Venture Contract ⁽⁶⁾		Sale of electricity to HKNIC:
	13,070.00GWh	12,576.27GWh

Corporate Governance

Directors' Report

- (1) It was entered into on November 21, 2014 on normal commercial terms, renewed on September 25, 2016, and would be valid until December 31, 2018, pursuant to which the Group and CGN Group will provide general services to each other.
- (2) It was entered into on November 21, 2014 on normal commercial terms, renewed on September 25, 2016, and would be valid until December 31, 2018, 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 2017, the annual cap of total amount payable to the CGN Group by the Group was RMB6,947,000,000.00. The annual cap was renewed by the supplemental agreement of engineering services framework agreement signed in 2016. Please refer to the above table for relevant data.

CGN Engineering and its subsidiaries have been providing engineering services to the Group in accordance with the 2014 Engineering Services Framework Agreement in its ordinary and usual course of business since its establishment. After the acquisition of 100% equity interests in CGN Engineering from CGN by the Company, CGN Engineering became the subsidiary of the Company, the transactions between CGN Engineering and its subsidiaries and the Group will no longer constitute continuing connected transactions.

Following the completion of the acquisition, the Group will provide engineering services to CGN Group through CGN Engineering and its subsidiaries, and CGN Group will no longer provide any engineering services to the Group.

- (4) It was entered into on November 21, 2014 on normal commercial terms, renewed on March 18, 2015, and would be valid until December 9, 2018, 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 2017, the annual cap of total amount payable to the CGN Group by the Group was RMB4,267,000,000.00. The annual cap was updated by the supplemental agreement of 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 was valid until May 6, 2034, pursuant to which the Group will sell electricity to HKNIC, and the electricity volume sold will be the annual cap and the unit will be GWh.

In addition to the above continuing connected transactions, our continuing connected transactions during 2017 include trademark license agreement, custodian service framework agreement and guarantee from CGNPC, which are 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, manage the assignment of responsibility, decision making authority and specify the requirements for information disclosures. During the execution of the connected transaction, 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 2017, when carrying out management of connected transaction, 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 optimization plan for internal control of major connected transactions formulated by the Company in 2016, we specified and supplemented detailed requirements on execution in 2017, which led to refined and efficient management of connected transactions. Meanwhile, we continued to organize trainings 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;
- 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.

Corporate Governance

Directors' Report

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;
- 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 Chapter 14A of the Listing Rules.

Related Party Transactions

Details of the significant related party transactions carried out in the normal course of business are set out in note 45 to the Consolidated 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, 2017 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 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.

Auditor

The consolidated financial statements for the year have been audited by Deloitte Touche Tohmatsu, its term of appointment shall expire on the date of the AGM of the Company, and the Company has not changed its auditors for the previous three years.

Remuneration Policy

For details of the Company's remuneration policy, please refer to the section headed "Human Capital" on Page 75 and the section headed "Remuneration Committee Report" on Page 144.

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 13 to the Consolidated 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 144.

Charitable Donations

For the year ended December 31, 2017, the Group provided in-depth support to the national plan of poverty alleviation in the new era, actively responded to the call to "devote unwavering efforts to poverty alleviation", actively facilitated the poverty alleviation works and performed its social responsibility. In 2017, the Group made donations for poverty alleviation and other donations in a total amount of RMB18,674,400.

By order of the Board
Zhang Shanming
Chairman

March 8, 2018

Audit and Risk Management Committee Report

Composition and Duties

The Audit and Risk Management Committee was appointed by the Board, comprising three members, being 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) (independent non-executive Director) and Zhang Yong (張勇) (non-executive Director). The details of their personal particulars are set out in the “Board of Directors, Supervisory Committee and Senior Management” of this Annual Report on page 94.

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 terms of reference are detailed in the Terms of Reference for the Audit and Risk Management Committee of CGN Power Co., Ltd. and set out on the websites of the Company and the Stock Exchange.

Meetings of the Audit and Risk Management Committee shall be held at least twice a year or an extraordinary meeting shall be convened when necessary. The meetings shall discuss internal audit work plan and listen to working reports from the Company’s management, review the Company’s interim report and annual 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.

The Audit and Risk Management Committee shall fulfill the duties conferred by the Articles of Association and is responsible for examining the regular financial reports of the Company, the appointment of independent auditors and audit fees and other matters. Please refer to the “Corporate Governance Report” on page 114 of this Annual Report for details of duties.

Annual Work Summary

In 2017, the Audit and Risk Management Committee convened four on-site meetings to consider 24 resolutions. All members expressed independent opinions, which were reported to the Board by the chairman of the committee. In addition to the resolutions in relation to the interim and annual financial reports and the appointment of audit firms of the Company for 2017, the Audit and Risk Management Committee also considered the resolutions in relation to the 2017 internal audit plan of the Company and working plan of the committee. The committee also stepped up its efforts in considering the resolutions in relation to internal control and risk management, including the internal control assessment report and risk management and assessment report for the year 2016, the internal control assessment plan and risk management assessment plan for the year 2017 of the Company.

Audit and Risk Management Committee
Francis Siu Wai Keung
Chairman
March 8, 2018

Remuneration Committee Report

Composition and Duties

The members of Remuneration Committee were appointed by the Board, comprising three members, being 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). Details of their personal particulars are set out in “Directors, Supervisors and Senior Management” of this Annual Report on page 94.

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 terms of reference are detailed in Terms of Reference for the Remuneration Committee of CGN Power Co., Ltd. and set out on the websites of the Company and Hong Kong Stock Exchange.

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.

The Remuneration Committee shall fulfill the duties conferred by the Articles of Association and is responsible for making recommendations on the remuneration of the Directors, Supervisors and senior management of the Company and other matters. Please refer to the “Corporate Governance Report” on page 115 of this Annual Report for details of duties.

Annual Work Summary

In 2017, the Remuneration Committee convened five meetings, of which two were on-site meetings and three were convened by teleconference, to consider nine resolutions. All members expressed independent opinions, which were reported to the Board by the chairman of the committee. The committee attached great importance to the 2017 performance assessment plan for the President, Vice President and other senior management, and had detailed discussions on and consideration of the specific assessment criteria. The performance assessment plan for the President and other senior management proposed to the Board for approval ensured that the Company would achieve its operational objectives in 2017, and was reasonably challenging, which further motivated the President and other senior management to create greater value for the Company. The Implementation Plan of the Second Batch of Share Appreciation Rights Incentive Scheme was also considered at the meeting, which provided necessary incentives to the senior management and key talents of the Company to make an effort to achieve the operational objectives of the Company.

Remuneration Committee Report

Remuneration for Directors, Supervisors and Senior Management

The remuneration for non-executive directors appointed by the controlling shareholders 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 such factors as the size of the Company, the industry in which the Company operates, and with reference to the appointments held by a 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 supervisors appointed by the controlling shareholders of the Company shall be paid by the company they work for. It is determined in accordance with the remuneration requirements of the Company. The remuneration for non-employee representative supervisors is determined by such factors 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 2017 are set out below which includes the remuneration of the members of two sessions of Board of Directors and two sessions of Supervisory Committee. For details of the remuneration for Directors, Supervisors and chief executive officers and the details of the remunerations for the five individuals with the highest remuneration in 2017, please refer to Note 13 to the consolidated financial statements.

	Fees RMB'000	Salaries, other allowances and discretionary bonus RMB'000	Pension scheme* contributions RMB'000	Total RMB'000
Directors	1,600	669	86	2,355
Supervisors	300	2,669	185	3,154
Senior management officers	—	2,922	264	3,186

* 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 individual 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 2017 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	—	669	86	755
Su Shengbing	—	1,018	85	1,103
Yin Engang*	—	240	20	260
Wei Qiyang	—	995	73	1,068

* Mr. Yin Engang was appointed as the chief financial officer at the first interim meeting of the second session of the Board of the Company for a term of three years with effect from October 16, 2017.

Remuneration Committee
Hu Yiguang
Chairman
March 8, 2018

Nomination Committee Report

Composition and Duties

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) (the Chairman and a non-executive Director) and Hu Yiguang (胡裔光) (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 92.

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 terms of reference are detailed in the Terms of Reference for the Nomination Committee of CGN Power Co., Ltd. and set out on the websites of the Company and the Hong Kong Stock Exchange.

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 then make recommendations to the Board.

The Nomination Committee shall fulfill the duties conferred by the Articles of Association and is 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. Please refer to the “Corporate Governance Report” on page 116 of this Annual Report for details of duties.

Annual Work Summary

In 2017, the Nomination Committee convened three meetings, of which one was an on-site meeting and two were convened by teleconference, to consider six resolutions. All members expressed independent opinions, which were reported to the Board by the chairman of the committee. The selection of new session of the Board was the major task of the Board in 2017. The Nomination Committee made early preparation by urging the Company to formulate the working plan for selection of the new session of the Board, reviewing such plan and supervising the implementation of such plan. With the joint efforts from different parties, the selection of new session of the Board was smoothly completed. In the appointment of the President, Vice President, Chief Financial Officer, Board Secretary and other senior management officers of the Company, the Nomination Committee will provide the Board with a qualification review as a reference for the Board in its decision-making.

The Nomination Committee reviewed and considered that: the current session of the Board comprising of nine 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 Directors are able to express independent opinions on connected transactions and other matters; the current session of the Board has one female Director, which further strengthened the Board diversity; 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, etc. The policy is available on the Company's website.

Pursuant to the Board Diversity Policy of CGN Power Co., Ltd., the Company formulated the assessment indicators for performance of Directors. In December 2017, the Nomination Committee conducted assessment based on the assessment indicators for performance of Directors, and the assessment results of the performance of duties of all Directors were satisfactory.

Nomination Committee
Na Xizhi
Chairman
March 8, 2018

Nuclear Safety Committee Report

Composition and Duties

Members of the Nuclear Safety Committee were appointed by the Board. The Nuclear Safety Committee comprises five members, being Zhang Shanming (張善明) (the chairman of the Nuclear Safety Committee, Chairman of the Board and a non-executive Director), Gao Ligang (高立剛) (an executive director), Zhong Huiling (鍾慧玲) (a non-executive director), 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 92.

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 Terms of Reference for the Nuclear Safety Committee of CGN Power Co., Ltd. and set out on the website of the Company and the website of the Hong Kong Stock Exchange.

Meetings of the Nuclear Safety Committee shall be held at least twice a year. The meetings shall discuss internal nuclear safety management plan 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 fulfill the duties conferred by the Articles of Association and is responsible for receiving the report on nuclear safety of the Company and the assessment report on the Company from third party institutions and other matters. Please refer to the “Corporate Governance Report” on page 116 of this Annual Report for details of duties.

Annual Work Summary

In 2017, the Nuclear Safety Committee under the Board of the Company convened two on-site meetings to consider five resolutions. All members expressed independent opinions, which were reported to the Board by the chairman of the committee. At the above meetings, the safety quality and relevant improvement and the benchmarking matters of the Company were reviewed.

The Nuclear Safety Committee considered that the safety management work of the Company in 2017 was practical and detail-oriented with ever increasing transparency, and the safety performance indicators were continuously enhanced. The Nuclear Safety Committee will continue to facilitate the improvement of safety management, endeavor to strengthen the safety of nuclear power production and ensure that the operational objectives of the Company are achieved.

Nuclear Safety Committee
Zhang Shanming
Chairman
March 8, 2018

Supervisory Committee Report

Composition

The Company has five Supervisors, of which two are employee representative Supervisors and three are non-employee representative Supervisors. Employee representative Supervisors Mr. Cai Zihua (蔡梓華) and Mr. Wang Hongxin (王宏新) were appointed at the third meeting of the first session of employee representative meeting (“**employee representative meeting**”) of the Company held on March 24, 2017. Non-employee representative Supervisors Mr. Chen Sui (陳遂), Mr. Yang Lanhe (楊蘭和) and Mr. Chen Rongzhen (陳榮真) were appointed at the 2016 AGM held on May 24, 2017, and Mr. Chen Sui was elected as the Chairman of the second session of Supervisory Committee of the Company at the first meeting of the second session of Supervisory Committee held on the same date.

Biographical details of the current Supervisors are set out in the “Board of Directors, Supervisory Committee and Senior Management” of this Annual Report on page 96.

Regular meetings of the Supervisory Committee shall be held at least twice a year, and extraordinary meetings of the Supervisory Committee shall be held 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 staff against infringements.

Duties and Responsibilities

- 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, regulation or the Articles of Association, 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 in a general meeting;
- To propose to convene an EGM, where the Board fails to perform the duties in relation to convene or chair a general meeting as required by the Company Law of the PRC, 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;
- 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;
- To perform other duties and powers as stipulated in the Articles of Association.

Annual Work Summary

During the reporting period, the Supervisory Committee convened six meetings, of which four were on-site meetings and two were convened by teleconference. The Supervisors attended all on-site meetings of the Board, and reviewed the annual and interim financial reports and profit distribution plan of the Company, the Chairman of Supervisory Committee attended the annual general meeting and supervised the voting results of the general meeting.

Corporate Governance

Supervisory Committee Report

According to the requirements of the Articles of Association, the Supervisors of the Company shall serve a term of three years and may be re-elected for continuous appointment. The term of office of the first session of the Supervisory Committee expired on March 23, 2017. The second session of employee representative Supervisors was elected at the third meeting of the first session of employee representative meeting held on March 24, 2017. The election of the new session of Supervisory Committee was carried out simultaneously with the election of new session of the Board, and accordingly, the election of the second session of non-employee representative Supervisors of the Supervisory Committee was postponed to the AGM held on May 24, 2017. As considered and approved at the thirteenth meeting of the first session of the Supervisory Committee, non-employee representative Supervisors of the Supervisory Committee continued to perform their duties until the second session of the Supervisory Committee was elected at the 2016 AGM. After the recommendation by shareholders, consideration by Supervisory Committee and other procedures, the second session of Supervisory Committee of the Company was elected at the AGM held on May 24, 2017.

During 2017, the meetings convened by the Supervisory Committee are as follows:

Number	Meeting	Date	Method of Convening	Attendance/ Number of Supervisors
1	Thirteenth meeting of the first session of the Supervisory Committee	January 5, 2017	Physical	5/5
2	Fourteenth meeting of the first session of the Supervisory Committee	March 15, 2017	Physical	5/5
3	Fifteenth meeting of the first session of the Supervisory Committee	March 31, 2017	By teleconference	5/5
4	First meeting of the second session of the Supervisory Committee	May 24, 2017	Physical	5/5
5	Second meeting of the second session of the Supervisory Committee*	August 28, 2017	Physical	3/5
6	Third meeting of the second session of the Supervisory Committee	December 14, 2017	By teleconference	5/5

* Supervisors Cai Zihua and Wang Hongxin failed to attend the second meeting of the second session of Supervisory Committee due to other business engagements.

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.

- Plan for Selection of New Session of Supervisory Committee of the Company
- Report of the Supervisory Committee of the Company for 2016
- Financial Report of the Company for 2016
- Profit Distribution Plan of the Company for 2016
- List of Candidates for the Second Session of Supervisors of the Company
- Election of Chairman of the Second Session of Supervisory Committee of the Company
- Interim Financial Report of the Company for 2017
- Implementation Plan of the Second Batch of Share Appreciation Rights Incentive Scheme

During 2017, the attendance of the Supervisors of the Company at the Board meetings is as follows:

Name	Position	Attendance at the Board meetings as observers/ Number of Meetings
Pan Yinsheng ^(a)	Non-employee representative Supervisor/Chairman of the first session of Supervisory Committee	3/3
Chen Sui ^(b)	Non-employee representative Supervisor/Chairman of the second session of Supervisory Committee	3/3
Yang Lanhe	Non-employee representative Supervisor	6/6
Chen Rongzhen	Non-employee representative Supervisor	6/6
Cai Zihua	Employee representative Supervisor	5/6
Wang Hongxin	Employee representative Supervisor	5/6

Notes:

- (a) Due to work change and expiry of term of office, Mr. Pan Yinsheng retired as a non-employee representative Supervisor after the 2016 AGM with effect from May 24, 2017.
- (b) Mr. Chen Sui was appointed as a non-employee representative Supervisor at the 2016 AGM with effect from May 24, 2017.

Supervisory Committee Report

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 2017, the trainings received and the inspections conducted by the Supervisors (including the Supervisors of two sessions of the Supervisory Committee) of the Company were as follows:

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

Independent Opinions on the Lawful Operation of the Company

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 Hong Kong, 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.

Independent Opinions on the 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.

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 2017 (《公司2017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.

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
Chen Sui
Chairman
March 8, 2018

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, transfer, avoid or manage the effects resulting from such risks, while at the same time raise the effect and efficiency of operation, create and protect the Company's values. In this respect, the Company has strived to improve its comprehensive risk management structure, raising 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.

At the strategic planning level, 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.

At the daily operational level, risk management promotes the full implementation of major policies 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 rules and regulations.

Objectives, Strategies, System and Procedure of Risk Management

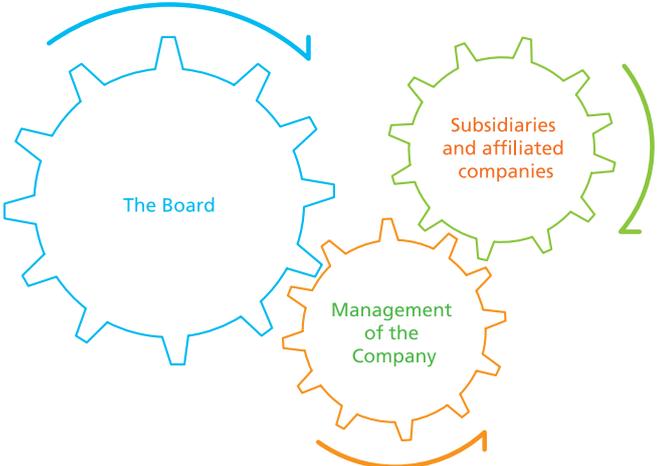
Objectives and Strategies of Risk Management

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 assesses the risk the Company is willing to tolerate at least once a year. The assessment is mainly based on the Company's values, goals and resources, and must follow the requirements of the related rules 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:

- having a disruptive influence on the Company's development;
- occurrence of serious incidents, resulting in disruption of operation/supply;
- material financial losses that affect the business development capacity of the Company, and/or cause serious damage to the Company's financial management capacity;
- incidents that affect the safety and the health of the employees, contractors and the public;
- serious violations of external regulations to the extent that the Company may disrupt operations/withdraw licenses and/or be imposed with huge fines;
- causing harm to the Company's reputation or brands.

Based on the aforementioned ability to take risks, we assess risks and rank them, while requiring each business unit to identify the consequences and likelihood of risks, 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;

The following three different roles and responsibilities are included.

Decision-making and monitoring	<p>The Board</p> <ul style="list-style-type: none"> • 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; • To monitor the major risks for the year and fulfill the management responsibilities of major risks; • To discuss risk management and internal control system with the management, ensuring that management has fulfilled its obligation on the establishment of effective system; • 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; • To study the important findings of risk management and internal control matters and the relevant measures taken by the management. 		
Setting goals and solutions	<table border="1"> <tr> <td data-bbox="379 1231 608 1711"> <p>Management of the Company</p> </td> <td data-bbox="608 1231 1445 1711"> <p>The President</p> <ul style="list-style-type: none"> • To continuously improve the risk management system; • 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; • To continuously supervise and evaluate the effectiveness of establishing and operating the Company’s comprehensive risk management system. <p>Risk Management Department</p> <ul style="list-style-type: none"> • To promote and facilitate the normal operation of the Company’s comprehensive risk management and related risk management workflow; • To organize and coordinate the routine work of the comprehensive risk management; • To guide and supervise each unit to carry out comprehensive risk management; • To prepare the monthly risk monitoring reports, and the quarterly and annual risk assessment reports by the Company. </td> </tr> </table>	<p>Management of the Company</p>	<p>The President</p> <ul style="list-style-type: none"> • To continuously improve the risk management system; • 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; • To continuously supervise and evaluate the effectiveness of establishing and operating the Company’s comprehensive risk management system. <p>Risk Management Department</p> <ul style="list-style-type: none"> • To promote and facilitate the normal operation of the Company’s comprehensive risk management and related risk management workflow; • To organize and coordinate the routine work of the comprehensive risk management; • To guide and supervise each unit to carry out comprehensive risk management; • To prepare the monthly risk monitoring reports, and the quarterly and annual risk assessment reports by the Company.
<p>Management of the Company</p>	<p>The President</p> <ul style="list-style-type: none"> • To continuously improve the risk management system; • 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; • To continuously supervise and evaluate the effectiveness of establishing and operating the Company’s comprehensive risk management system. <p>Risk Management Department</p> <ul style="list-style-type: none"> • To promote and facilitate the normal operation of the Company’s comprehensive risk management and related risk management workflow; • To organize and coordinate the routine work of the comprehensive risk management; • To guide and supervise each unit to carry out comprehensive risk management; • To prepare the monthly risk monitoring reports, and the quarterly and annual risk assessment reports by the Company. 		
Execution and reporting	<p>Other departments, business units of the Company, its subsidiaries and affiliated companies:</p> <ul style="list-style-type: none"> • To be responsible for the comprehensive risk management duties within the unit’s business operation; • To manage the specific risks of the unit; • To submit the unit’s monthly risk monitoring reports and annual risk management reports; • To organize the risk assessment of the unit according to the supervision of the Risk Management Department; • To organize the investigations, assessments and analyses on the relevant risk incidents before, during and after they take place in the unit respectively. 		

Corporate Governance

Risk Management Report

The Procedure of Risk Management

The Company's risk management procedures:	
<ul style="list-style-type: none"> To incorporate the Company's social responsibility, economic operation and development prospects. To make reference to the risk management contents of IAEA-TECDOC-1209. To make reference to the risk management framework of the Committee of Sponsoring Organizations of the Treadway Commission (COSO). To make continuous improvement to comply with the leading standard and practice in the industry, including ISO 31000:2009 risk management – principles and guidelines. To cultivate sound risk management culture and establish a sound and comprehensive risk management system, by focusing on the overall operational objectives and through implementing basic flow processes 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. 	
Assessment of the company	<ul style="list-style-type: none"> To identify significant risks which may affect the Company's business development during the Company's annual business planning. To analyse the internal and external situations for the next year by the Risk Management Department through such procedures as collecting, screening and sorting to disclose 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. 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.
Monthly risk monitoring	<ul style="list-style-type: none"> 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. The Risk Management Department will 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. The Risk Management Department will prepare a monthly risk monitoring report based on pre-screened and sorted key risk monitoring indicators and submit to the senior management and the Chairman for reporting the risk status of the current month.
Risk management during the business development process	<ul style="list-style-type: none"> In the process of the Company's development, when business units conduct major investment, business units must identify significant risks and put forward corresponding countermeasures.

We will identify new risks through risk information collection from the basic level to the top level in daily risk monitoring, and identify the undiscovered risks that may arise through half-year risk assessment 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. We will timely analyze the situation of new risks brought out by external environmental changes, formulate and adopt corresponding measures. The new risks identified through internal operation and external environment which are recognized as significant risks after evaluation and analysis will be listed as key risks under monitoring.

Key Risk Management Initiatives in 2017

We firmly adhered to the same concept on risk management, continued to improve risk management system by strengthening the active identification and management of risk events and 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.

In 2017, the Company actively responded to the internal and external challenges and opportunities. By analyzing the external environment and exploring internal drivers, the Company actively made active response and captured the opportunities to resolve the impact of internal and external uncertainties on the Company's development.

In 2017, we have identified the following major risks in the actual business development and have taken corresponding measures:

Description of risks	Key changes	Key measures
Safe and stable operation of multiple bases		
<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, 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 10 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>	<div style="text-align: center;"></div> <ul style="list-style-type: none"> In 2017, a total of 20 units are in operation, an increase of 1 unit year-on-year. 	<ul style="list-style-type: none"> Continue to carry out education of safety on all staff. Carry out the "Upholding compliance and fighting against non-compliance" safety education activities in relation to the cultivation of work habit of respecting and following procedures. Establish and implement a qualification certification system for the key positions, improving the technical skills of the operators. Strengthen online safety supervision, carry out ranking of equipment reliability, selection of "master of equipment" and other activities to improve equipment management and ensure the safe operation of units in operation.
 Lower than the risk level of last year	 Same as the risk level of last year	 Higher than the risk level of last year

Corporate Governance

Risk Management Report

Description of risks	Key changes	Key measures
Risks of sales in power market		
<p>The NPPs under our operation and management were affected by the local economic development, local demand for electricity, 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>	<div style="text-align: center;"></div> <ul style="list-style-type: none"> • The changes in trading mechanism of electricity arising from the power market reform influence electricity output and prices. • 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 because of surplus electricity. • Government and power grid projects affect power transmission, lowering the efficiency levels of the units. • Power grids request the units to operate at lower efficiency levels due to typhoons. 	<ul style="list-style-type: none"> • Establish a coordination mechanism with regional power stations which assumes responsibilities at different levels, pursue more planned output, follow up new electricity reform policies and situations (trading of power generation rights, direct power supply, etc.) and formulate response plans. • Formulate and implement corresponding solutions to lower and avoid the chances of deloading occurring during holidays. • Enhance marketing strength in the power market in most regions, so as to obtain a bigger market share. • Strengthen communication and coordination with national competent departments, local governments and power grid, actively follow up the trend of power market reform.
Controls on projects under construction		
<p>Safety and quality control, progress control and cost control of nuclear power projects under construction are the challenges faced by us.</p>	<div style="text-align: center;"></div> <ul style="list-style-type: none"> • We managed eight nuclear power units under construction. • After the units are synchronized, the limitations of power grids (including test windows, load levels, and on-grid permissions) will be more rigid, directly affecting the commissioning of the units. 	<ul style="list-style-type: none"> • Ensure working progress with quality, formulate special optimization measures and guarantee the project construction targets. • Implement investment control objectives of HPR1000 demonstration project, strengthen the design, procurement and construction schedule control of HPR1000 demonstration project. • Continue to carry out nuclear safety education, and enhance the trainings for the Company's staff and contractors to avoid human errors, improve the workers' technical skills and awareness of safety and quality.
 Lower than the risk level of last year	 Same as the risk level of last year	 Higher than the risk level of last year

Description of risks	Key changes	Key measures
Financial risks		
<p>Exchange rate: As RMB exchange rate fluctuated, the foreign currency debts of the Company affected the expected earnings and cash flow.</p> <p>Debts: The tightening credit policies and increasing market interest rates created greater pressure on the debt financing and cost control of the Company.</p>	<div style="text-align: center;"></div> <ul style="list-style-type: none"> In 2017, the economy in the Eurozone registered strong recovery, which led to depreciation in the exchange rate of the RMB against the Euro and posed challenges to the Group in risk management of foreign currency debts. At present, the Group has a stable gearing ratio, and its cash and banking facilities are in good position. 	<ul style="list-style-type: none"> The Company mitigated the impact from fluctuation of RMB exchange rates by narrowing down the exposure of foreign currency debts through forward trading, debt swaps and early repayment. On the one hand, we meet long-term, 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, reduce the risk of refinancing, and ensure the security of our overall debt. On the other hand, the Company continues to adjust the debt structure and expand the financing channels to improve capital sufficiency and control the financing cost.
 Lower than the risk level of last year	 Same as the risk level of last year	 Higher than the risk level of last year

The overall nuclear safety situations are under control according to our inspection on the conditions of nuclear power generating units in operation in 2017 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 2017. Through reviewing the completion status of power generation plans for 2017 as well as internal and external efforts, the completion rate of the power generation plans was well guaranteed.

Corporate Governance

Risk Management Report

Outlook for 2018 and Important Measures

In 2018, the Company will face more challenges. As China is going through economic transformation, sectoral structural adjustments, and deepening reforms in the power market, the external environment will be more complicated for the Company in 2018, which will bring about more uncertainties to sales of electricity of the Company.

In 2018, based on the “13th Five-Year” plan of the Company, the operational objectives and plan for major tasks of 2018, the Company 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 overall objectives of the Company’s risk management in 2018 are: operating in compliance with laws and regulations, avoiding or reducing losses, ensuring the preservation and appreciation of assets, achieving capital return objectives and ensuring the steady development of the Company.

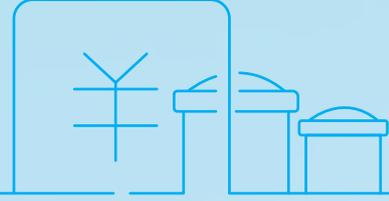
We will continue to fulfill risk management responsibilities and optimize the risk monitoring methods through internal control functions and business departments, so as to reduce the impacts of significant risks on our business development.

- As for safe and stable operation of multiple bases
 - √ comprehensively implement the requirements of the Nuclear Safety Law of the People’s Republic of China.
 - √ 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 equipment management and enhance the equipment reliability.
 - √ continue to carry out nuclear safety culture construction activities, play the demonstrative role of senior management and establish a long-term mechanism.
- As for risks of sales in power market
 - √ actively facilitate the implementation of policies in relation to supporting the consumption of electricity generated by nuclear power and the plans for ensuring prioritized power generation by nuclear power generating units.
 - √ 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.
 - √ optimize the outage schedule and avoid crashing and idleness.
 - √ strengthen the feedback system and continuously enhance the effectiveness of feedback.
 - √ enhance progress control on design solidification and prevent claims and delay.

In the face of increasing uncertainties in the business environment, the Company will carry out efficient risk management as always, monitor risks continuously and rigorously for the realization of the Company’s operational and strategic objectives.





Financial Report

164 Independent
Auditor's Report

171 Consolidated
Financial Statements

181 Notes to the Consolidated
Financial Statements

Independent Auditor's Report

Deloitte.

德勤

To the Shareholders of 中國廣核電力股份有限公司 CGN Power Co., Ltd.
(incorporated in the Peoples' Republic of China with limited liability)

Opinion

We have audited the consolidated financial statements of 中國廣核電力股份有限公司 CGN Power Co., Ltd. (the "Company") and its subsidiaries (collectively referred to as "the Group") set out on pages 171 to 325, which comprise the consolidated statement of financial position as at December 31, 2017, and the consolidated statement of profit or loss and other comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the consolidated financial statements give a true and fair view of the consolidated financial position of the Group as at December 31, 2017, and of its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards ("IFRSs") and have been properly prepared in compliance with the disclosure requirements of the Hong Kong Companies Ordinance.

Basis for Opinion

We conducted our audit in accordance with International Standards on Auditing ("ISAs"). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Consolidated Financial Statements section of our report. We are independent of the Group in accordance with the International Ethics Standards Board for Accountants' Code of Ethics for Professional 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 opinion.

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 of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Key audit matter**How our audit addressed the key audit matter**

Accounting for business combinations other than involving entities under common control

We identified the accounting for business combination other than involving entities under common control as a key audit matter due to the significant management judgement and estimation required in analysis of control, the determination of acquisition date, the determination of the fair value of equity interest in 福建寧德核電有限公司 Fujian Ningde Nuclear Power Co., Ltd. (“Ningde Nuclear”) previously held as interest in a joint venture at the acquisition date, fair value of the identifiable assets and liabilities as at the acquisition date and measurement and allocation of goodwill.

As disclosed in note 47 to the consolidated financial statements, the Group held equity interest in Ningde Nuclear as a joint venture previously. Since January 1, 2017, the Group has obtained control over Ningde Nuclear through a subsidiary, 中廣核寧核投資有限公司 CGN Ninghe Investment Co., Ltd. (“CGN Ninghe Investment”). The business combination was achieved without the transfer of consideration and has been accounted for using the acquisition method. The Group has remeasured its equity interest in Ningde Nuclear previously held as interest in a joint venture to fair value at the acquisition date and the resulting gain is recognized in profit or loss. Goodwill is measured as the excess of the sum of the amount of any non-controlling interests in the Ningde Nuclear, and the fair value of the Group’s previously held equity interest in Ningde Nuclear over the net amount of the identifiable assets acquired and the liabilities assumed as at acquisition date.

The Group has engaged an independent and professional qualified valuer not connected to the Group to carry out the valuation of the assets and liabilities acquired and its equity interest in Ningde Nuclear previously held as interest in a joint venture.

As disclosed in notes 7 and 47 to the consolidated financial statements, the Group recognized a gain on remeasurement of previously held interest in a joint venture becoming a subsidiary of RMB1,785,082,000 during the year ended December 31, 2017, and goodwill of RMB419,243,000 at the date of acquisition.

Our procedures in relation to the business combinations other than involving entities under common control included:

- Analysing management’s assessment of the control over Ningde Nuclear in accordance with IFRS 10 *Consolidated Financial Statements*, including examining the agreements and interviewing directors of Ningde Nuclear being appointed in accordance with the agreement;
- Evaluating the determination of acquisition date by examining the conditions of the agreement to take effect and the timing when the Group took control over the financial and operating policies of Ningde Nuclear initially;
- Assessing the objectivity, independence and competence of the independent and professional qualified valuer engaged by the Group, based on interviews and searches;
- Assessing the reasonableness of the methods and assumptions used in the assessment of the fair value of the equity interest in Ningde Nuclear previously held as interest in a joint venture and the identifiable assets and liabilities of Ningde Nuclear at the acquisition date, based on our knowledge of the business and industry, checking the consistency of financial data used in the valuation report with historical data, and assessing the reasonableness of financial forecast data and results by comparing the gross profit margin and the revenue growth rate in forecast period with the historical period and the management development plans;
- Involving our valuation specialists to review the methods and key assumptions used in assessment of the fair value of the equity interest in Ningde Nuclear previously held as interest in a joint venture, including assessing appropriateness of the discount rates and evaluating the mathematical accuracy of the calculations of the net present value of future cash flows; and
- Reviewing the computation of goodwill and gain on remeasurement of previously held interest in a joint venture becoming a subsidiary, and accounting treatment of the business combinations.

Independent Auditor's Report

Key audit matter	How our audit addressed the key audit matter
<p>Recognition of revenue and costs from construction contracts</p> <p>We identified recognition of revenue and costs from construction contracts as a key audit matter 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.</p> <p>In accordance with accounting policies, the Group recognized contract revenue and costs from construction contracts according to the management's estimation of completion progress of construction works. As disclosed in notes 5 to the consolidated financial statements, the Group recognized revenue from construction contracts of RMB2,680,489,000 for the year ended December 31, 2017. Notwithstanding that the management reviewed and revised the estimates of both contract revenue and costs for the construction contracts as the contract progresses, the actual outcome of the contracts in terms of its total revenue and costs may be different from the estimation and this will have financial impacts on profit recognized.</p>	<p>Our procedures in relation to recognition of revenue and costs from construction contracts included:</p> <ul style="list-style-type: none"> • Testing operation effectiveness on key internal control over recognition of revenue and costs from construction contracts; • Evaluating the appropriateness of the contract budget of the projects estimated by the management by (i) discussing with the management to understand how the project budgets were prepared, and (ii) assessing the reliability of the Group's budget revisions on a sample basis; • Evaluating the authenticity of the contract costs incurred during the year by checking the original documents, on sample basis; and • Recalculating revenue and costs from construction contracts based on recalculation of the percentage of completion on sample basis, and comparing with actual revenue and costs.

Key audit matter**How our audit addressed the key audit matter**

Provision for nuclear power plant decommissioning

We identified the provision for nuclear power plant decommissioning as a key audit matter due to the significant management judgement and estimation required in determining the amount of the provision.

As disclosed in note 37 to the consolidated financial statements, the carrying amount of provision for nuclear power plant decommissioning as at December 31, 2017 is approximately RMB2,952,098,000. The Group has incurred obligations to handle the decommissioning of the Group's nuclear power plants in accordance with the relevant regulatory requirements in The People's Republic of China (the "PRC"). Management of the Group 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 labour cost in the PRC, complexity of the technology to be applied, and the most recent developments in regulations in the PRC environment.

Our procedures in relation to the provision for nuclear power plant decommissioning 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 Group's decommissioning fees model 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 Group's decommissioning fees model based on our knowledge of the business and industry; Comparing difference on major costs and expenses in decommissioning fees models between PRC and the United States and analyzing the differences in currencies, staff costs, nuclear power technologies for different nuclear 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, based on our knowledge of the business and industry; and
- Reviewing the sensitivity analysis on the key factors in decommissioning fees model performed by the management, and evaluating the appropriateness of key assumptions used by the management.

Independent Auditor's Report

Other Information

The directors of the Company are responsible for the other information. The other information comprises the information included in the annual report, but does not include the consolidated financial statements and our auditor's report thereon.

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

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

Responsibilities of Directors and Those Charged with Governance for the Consolidated Financial Statements

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

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

Those charged with governance are responsible for overseeing the Group's financial reporting process.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion solely to you, as a body, in accordance with our agreed terms of engagement, and for no other purpose. We do not assume responsibility towards or accept liability to any other person for the contents of this report. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

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

- o Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- o Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- o Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors.
- o Conclude on the appropriateness of the directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.

Independent Auditor's Report

- o Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- o Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated 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 consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The engagement partner on the audit resulting in the independent auditor's report is Yeung Yu Man.



Deloitte Touche Tohmatsu

Certified Public Accountants

Hong Kong

March 8, 2018

Financial Report

Consolidated Statement of Profit or Loss and other Comprehensive Income

For the year ended December 31, 2017

	NOTES	2017 RMB'000	2016 RMB'000
Revenue	5	45,616,454	32,890,307
Less: Tax surcharge		(627,548)	(437,066)
Cost of sales and services		(25,406,270)	(18,096,205)
Gross profit		19,582,636	14,357,036
Other income	6	1,756,707	1,657,690
Net gain (loss) arising from changes in fair value of derivative financial instruments	9	29,936	(13,844)
Selling and distribution expenses		(91,087)	(99,702)
Other expenses		(773,886)	(751,802)
Administrative expenses		(2,332,040)	(2,258,557)
Other gains and losses	7	1,353,679	(520,533)
Share of results of associates		599,638	539,422
Share of results of joint ventures		2,998	751,125
Finance costs	8	(6,287,151)	(4,083,346)
Profit before taxation	9	13,841,430	9,577,489
Taxation	10	(1,326,909)	(652,782)
Profit for the year		12,514,521	8,924,707
Other comprehensive (expenses) income:			
Items that may be reclassified subsequently to profit or loss:			
– Exchange differences arising on translation of a subsidiary		(428,938)	498,373
– Share of other comprehensive expenses of associates		(114,301)	(152,116)
– Others		(3,279)	(2,690)
Other comprehensive (expenses) income for the year		(546,518)	343,567
Total comprehensive income for the year		11,968,003	9,268,274
Profit for the year attributable to:			
Owners of the Company		9,500,319	7,286,934
Non-controlling interests		3,014,202	1,637,773
		12,514,521	8,924,707

Financial Report

Consolidated Statement of Profit or Loss and other Comprehensive Income

For the year ended December 31, 2017

	NOTES	2017 RMB'000	2016 RMB'000
Total comprehensive income attributable to:			
Owners of the Company		9,061,132	7,505,902
Non-controlling interests		2,906,871	1,762,372
		11,968,003	9,268,274
Earnings per share attributable to owners of the Company, basic (RMB)	12	0.209	0.160

Consolidated Statement of Financial Position

As at December 31, 2017

	NOTES	December 31, 2017 RMB'000	December 31, 2016 RMB'000
NON-CURRENT ASSETS			
Property, plant and equipment	14	277,283,783	216,509,163
Intangible assets	15	3,695,173	3,065,535
Investment properties	16	239,670	320,333
Goodwill	17	419,243	—
Interests in associates	18	8,346,444	7,837,967
Interests in joint ventures	19	17,187	4,199,132
Available-for-sale investments	20	195,310	195,310
Deferred tax assets	21	1,551,267	1,687,249
Derivative financial instruments	28	1,857	1,416
Prepayments and value-added tax recoverable	26	6,688,555	6,277,564
Prepaid lease payments	22	3,485,679	2,959,611
Deposits for property, plant and equipment	14	1,233,431	755,884
		303,157,599	243,809,164
CURRENT ASSETS			
Inventories	23	19,738,837	13,137,983
Amounts due from customers for contract work	24	6,819,200	5,300,838
Prepaid lease payments	22	98,168	85,649
Trade and bills receivables	25	6,648,448	5,735,493
Prepayments and other receivables	26	9,094,120	7,360,943
Amounts due from related parties	27	1,619,500	1,625,292
Derivative financial instruments	28	2,735	12,521
Restricted bank deposits	29	9,367	6,400
Other deposits over three months	29	2,023,000	2,047,000
Cash and cash equivalents	29	10,315,715	8,456,534
		56,369,090	43,768,653
Assets classified as held for sale	30	—	55,977
		56,369,090	43,824,630

Consolidated Statement of Financial Position

As at December 31, 2017

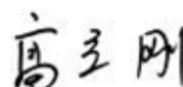
	NOTES	December 31, 2017 RMB'000	December 31, 2016 RMB'000
CURRENT LIABILITIES			
Trade and other payables	31	24,211,067	19,294,867
Amounts due to customers for contract work	24	499,175	855,926
Amounts due to related parties	32	2,997,414	8,081,680
Loans from ultimate holding company	33	800,000	1,025,500
Loans from fellow subsidiaries	33	1,691,560	3,651,242
Loans from an associate	33	4,405,803	3,945,435
Loans from non-controlling interests	33	1,255,996	—
Income tax payable		670,628	630,519
Provisions	37	1,187,124	1,060,000
Bank borrowings - due within one year	34	21,904,038	20,806,759
Notes payable - due within one year	35	1,000,000	5,600,000
Derivative financial instruments	28	31,560	215,036
		60,654,365	65,166,964
Liabilities directly associated with assets classified as held for sale	30	—	699
		60,654,365	65,167,663
NET CURRENT LIABILITIES		(4,285,275)	(21,343,033)
TOTAL ASSETS LESS CURRENT LIABILITIES		298,872,324	222,466,131

	NOTES	December 31, 2017 RMB'000	December 31, 2016 RMB'000
NON-CURRENT LIABILITIES			
Bank borrowings - due after one year	34	178,631,086	124,482,040
Notes payable - due after one year	35	6,995,867	7,993,568
Deferred tax liabilities	21	1,565,735	1,615,117
Deferred income	36	995,286	984,873
Provisions	37	3,244,866	2,467,433
Derivative financial instruments	28	—	5,744
Loans from fellow subsidiaries	33	1,750,500	—
Loans from an associate	33	3,130,897	2,989,975
Staff cost payables	46	24,950	28,708
		196,339,187	140,567,458
NET ASSETS			
		102,533,137	81,898,673
CAPITAL AND RESERVES			
Share capital	38	45,448,750	45,448,750
Reserves		20,388,925	11,085,951
Equity attributable to owners of the Company		65,837,675	56,534,701
Non-controlling interests	39	36,695,462	25,363,972
TOTAL EQUITY			
		102,533,137	81,898,673

The consolidated financial statements on pages 171 to 325 were approved and authorized for issue by the board of directors on March 8, 2018 and are signed on its behalf by:



Zhang Shanming
DIRECTOR



Gao Ligang
DIRECTOR

Consolidated Statement of Changes in Equity

For the year ended December 31, 2017

	Attributable to owners of the Company							Non-controlling interests	Total equity
	Share capital	Capital reserve	Statutory surplus reserves	Translation reserve	Other reserves	Retained earnings	Total		
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
		(notes a & e)	(notes b, c & e)		(note d)				
At January 1, 2016	45,448,750	5,698,516	3,238,806	(1,696,718)	330,791	7,835,271	60,855,416	24,464,217	85,319,633
Profit for the year	—	—	—	—	—	7,286,934	7,286,934	1,637,773	8,924,707
Other comprehensive income for the year	—	—	—	373,780	(154,812)	—	218,968	124,599	343,567
Total comprehensive income (expense) for the year	—	—	—	373,780	(154,812)	7,286,934	7,505,902	1,762,372	9,268,274
Capital injections	—	—	—	—	—	—	—	1,141,850	1,141,850
Acquisition under common control (note e)	—	(5,698,516)	(2,837,814)	—	—	—	(8,536,330)	—	(8,536,330)
Dividends declared (note 11)	—	—	—	—	—	(3,292,985)	(3,292,985)	(1,952,423)	(5,245,408)
Disposal of a subsidiary (note 48)	—	—	—	—	—	—	—	(52,044)	(52,044)
Appropriation of specific reserve	—	—	140,823	—	—	(140,823)	—	—	—
Utilization of specific reserve	—	—	(96,584)	—	—	96,584	—	—	—
Appropriation of general reserve	—	—	1,547,812	—	—	(1,547,812)	—	—	—
Share of other changes in net assets of an associate	—	—	—	—	2,698	—	2,698	—	2,698
At December 31, 2016	45,448,750	—	1,993,043	(1,322,938)	178,677	10,237,169	56,534,701	25,363,972	81,898,673
Profit for the year	—	—	—	—	—	9,500,319	9,500,319	3,014,202	12,514,521
Other comprehensive expenses for the year	—	—	—	(321,704)	(117,483)	—	(439,187)	(107,331)	(546,518)
Total comprehensive (expenses) income for the year	—	—	—	(321,704)	(117,483)	9,500,319	9,061,132	2,906,871	11,968,003
Capital injections	—	—	—	—	—	—	—	1,103,188	1,103,188
Disposal of a subsidiary (note 48)	—	—	—	—	—	—	—	(4,677)	(4,677)
Acquisition of a subsidiary (note 47)	—	—	—	—	—	—	—	6,509,513	6,509,513
Disposal of partial interests in a subsidiary without losing control	—	2,549,111	—	—	—	—	2,549,111	2,751,731	5,300,842
Dividends declared (note 11)	—	—	—	—	—	(2,317,845)	(2,317,845)	(1,933,722)	(4,251,567)
Appropriation of specific reserve	—	—	177,723	—	—	(177,723)	—	—	—
Utilization of specific reserve	—	—	(150,460)	—	—	150,460	—	—	—
Appropriation of general reserve	—	—	1,197,226	—	—	(1,197,226)	—	—	—
Share of other changes in net assets of an associate	—	—	—	—	9,162	—	9,162	—	9,162
Capital injection to a subsidiary resulting in increase in interest in a subsidiary	—	1,414	—	—	—	—	1,414	(1,414)	—
At December 31, 2017	45,448,750	2,550,525	3,217,532	(1,644,642)	70,356	16,195,154	65,837,675	36,695,462	102,533,137

Notes:

(a) Capital reserve

Capital reserve of the Group as at January 1, 2016 included deemed contribution from (distribution to) the ultimate holding company in relation to the nuclear power assets and liabilities transferred from the ultimate holding company to the Group before the completion of reorganization of the ultimate holding company (the "Reorganization"), the effects from change in Group's ownership interest in subsidiaries without loss of control as well as that from Regorganization, and capital injection from owners of the Company in excess of paid-in share capital and issued ordinary shares deducted by share issue cost.

(b) General reserve

As stipulated by the relevant laws in the People's Republic of China (the "PRC"), entities in the PRC are required to maintain a statutory surplus reserve. The statutory surplus reserve is 10% of profit after taxation of the entities according to the PRC statutory financial statements. The appropriation may cease to apply if the balance of the statutory surplus reserve has reached 50% of the PRC entities registered capital. The surplus reserve can be used to make up losses, or for conversion into capital, or for other usage according to the relevant rules in PRC. The PRC subsidiaries may, upon the approval by a resolution of the owners, convert the respective subsidiaries' surplus reserves into capital in proportion to the owners' then existing capital contribution.

(c) Specific reserve

Pursuant to the relevant the PRC regulations for construction companies, the Group's subsidiary, 中廣核工程有限公司 China Nuclear Power Engineering Co., Ltd. ("CGN Engineering") is required to set aside an amount to maintenance, improvements and other similar funds. The funds can be used for maintenance and improvements of safety at the construction sites, and are not available for distribution to owners of the subsidiaries.

(d) Other reserves

The amounts mainly represent the reserves shared by the Group in respect of its proportional sharing of the available-for-sale investment reserve of its associate.

(e) As stipulated by the relevant rules in the PRC, for the acquisition under common control, if the consideration of the acquisition exceeds the capital reserve balance, the shortfall should be firstly deducted from the statutory surplus reserves, and then retained earnings if statutory surplus reserves is not sufficient to cover the shortfall.

Consolidated Statement of Cash Flows

For the year ended December 31, 2017

	NOTES	2017 RMB'000	2016 RMB'000
Operating activities			
Profit before taxation		13,841,430	9,577,489
Provisions for nuclear power operation		1,283,540	1,076,193
Depreciation of property, plant and equipment		6,817,380	4,422,793
Amortization of prepaid lease payments		78,546	65,923
Depreciation of investment properties		21,839	27,981
Amortization of intangible assets		268,272	210,057
Finance costs		6,287,151	4,083,346
Effects of cash-settled share-based payment		(6,591)	18,018
Allowance for trade and bills receivables		22,268	4,323
Allowance for prepayments and other receivables		374	—
Allowance for inventories		275,316	151,955
Loss on disposals of property, plant and equipment		6,238	14,894
Gain on disposal of investment properties		—	(64,846)
Gain on remeasurement of previously held interest in a joint venture becoming a subsidiary		(1,785,082)	—
Gain on disposal of a subsidiary		(71,520)	38,339
Gain on disposal of an associate	7	(199)	—
Unrealized fair value change in derivative financial instruments		(197,260)	(120,409)
Dividend income from available-for-sale investments		(23,862)	(14,433)
Government grants related to assets		(63,237)	(64,402)
Interest income	6	(206,670)	(226,145)
Share of results of joint ventures		(2,998)	(751,125)
Share of results of associates		(599,638)	(539,422)
Unrealized net exchange losses		77,580	650,546
Operating cash flows before movements in working capital		26,022,877	18,561,075
Increase in inventories		(1,515,893)	(345,624)
Decrease in trade and bills receivables		2,134,363	546,605
Increase in trade and other payables		4,396,170	1,895,400
Decrease in nuclear power provision		(1,060,001)	(836,409)
Increase in derivative financial liabilities, net		19,252	177
Increase in amounts due from customers for contract work		(1,518,362)	(2,020,416)
(Decrease) increase in amounts due to customers for contract work		(356,751)	310,373
Cash generated from operations		28,121,655	18,111,181
Income tax paid		(1,324,390)	(1,358,446)
Net cash generated from operating activities		26,797,265	16,752,735

	NOTES	2017 RMB'000	2016 RMB'000
Investing activities			
Interest received		113,453	143,630
Deposits paid and purchase of property, plant and equipment		(18,319,379)	(17,296,238)
Addition to intangible assets		(703,885)	(535,924)
Addition to prepaid lease payments		(2,101)	(55,417)
Addition to investment properties		—	(931)
Proceeds from disposals of property, plant and equipment		5,640	243,843
Proceeds from disposals of investment properties		—	76,081
Proceeds from disposal of an associate	18	4,391	—
Government grants received		73,650	50,143
Placement of deposits with original maturity over three months		(173,000)	(581,277)
Withdrawal of deposits with original maturity over three months		197,000	1,436,956
Placement of restricted bank deposits		(3,249)	(16,971)
Withdrawal of restricted bank deposits		282	22,046
Repayment from loan receivables to a third party		—	60,000
Capital contributions to associates	18	(498,737)	(582,156)
Capital contributions to joint ventures		—	(282,814)
Dividends received from associates		423,968	275,452
Dividends received from a joint venture		—	572,883
Dividends received from available-for-sale investments		7,217	21,208
Acquisition of a subsidiary, net of cash acquired		—	(3,000,000)
Net cash (outflow) inflow from disposal of a subsidiary	48	(29,592)	55,431
Net cash inflow on acquisition of a subsidiary	47	108,552	—
Consideration receipt in advance for assets held for sale	30	—	127,200
Advance to related parties		(254,681)	(587,597)
Repayment to China General Nuclear Power Corporation ("CGNPC") on acquisition of subsidiaries		(5,536,330)	—
Repayment from related parties		59,339	611,676
Net cash used in investing activities		(24,527,462)	(19,242,776)

Consolidated Statement of Cash Flows

For the year ended December 31, 2017

	NOTES	2017 RMB'000	2016 RMB'000
Financing activities			
Capital injections from non-controlling interests		1,103,188	1,141,850
Interest paid		(10,000,788)	(8,030,682)
Loans from fellow subsidiaries		2,942,032	2,003,069
Repayment of loans from fellow subsidiaries		(3,151,302)	(2,231,835)
Loans from an associate		19,134,000	17,151,801
Repayment of loans from an associate		(19,525,293)	(17,094,342)
Repayment of payable to ultimate holding company		—	(2,000,000)
Loans from non-controlling interests		1,236,390	—
Loans from ultimate holding company		1,600,000	1,355,500
Repayment of loans from ultimate holding company		(1,825,500)	(3,055,500)
Proceeds from bank borrowings		43,198,484	37,556,099
Repayment of bank borrowings		(29,934,035)	(23,296,618)
Proceeds from issuing notes payable		—	2,500,000
Repayment of notes payable		(5,600,000)	(2,500,000)
Dividends paid to owners of the Company		(2,281,201)	(3,298,973)
Dividends paid to non-controlling interests		(2,388,160)	(1,385,427)
Advance from related parties		263,911	1,058,245
Repayment to related parties		(21,956)	(461,425)
Proceeds from disposal of partial interest in a subsidiary without losing control	39	5,000,000	—
Net cash used in financing activities	49	(250,230)	(588,238)
Net increase (decrease) in cash and cash equivalents		2,019,573	(3,078,279)
Cash and cash equivalents at the beginning of the year		8,456,534	11,381,296
Effects of exchange rate changes		(160,392)	153,517
Cash and cash equivalents at the end of the year		10,315,715	8,456,534

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

1. GENERAL INFORMATION AND BASIS OF PRESENTATION

General information

The Company was established in the PRC on March 25, 2014 (date of establishment) as a joint stock company with limited liability under the Company Law of the PRC and its shares have been listed on the Main Board of The Stock Exchange of Hong Kong Limited (the "Stock Exchange") on December 10, 2014.

The parent and the ultimate holding company of the Company is CGNPC, a state-owned enterprise in the PRC controlled by the State-Owned Assets Supervision and Administration Commission of the State Council (the "SASAC").

The consolidated financial statements are presented in Renminbi ("RMB"), which is also the functional currency of the Company and its principal subsidiaries.

Basis of presentation

In September 2016, the Company entered into an equity transfer agreement with CGNPC, the ultimate holding company of the Group. Pursuant to the agreement, the Company acquired 61% equity interest in 廣西防城港核電有限公司 Guangxi Fangchenggang Nuclear Power Co., Ltd. ("Fangchenggang Nuclear"), 100% equity interest in 中廣核陸豐核電有限公司 CGN Lufeng Nuclear Power Co., Ltd. ("Lufeng Nuclear"), and 100% equity interest in CGN Engineering and its subsidiaries (collectively referred to as the "Acquired Companies") from CGNPC at a cash consideration of RMB8,536,330,000 after making adjustment based on net assets' value of the Acquired Companies on acquisition date to the consideration. RMB3,000,000,000 has been paid by the Company in 2016 and the remaining consideration of RMB5,536,330,000 is included in the other payable to CGNPC as at December 31, 2016. Fangchenggang Nuclear and Lufeng Nuclear are engaged in nuclear power generation and sale of nuclear electricity. CGN Engineering is engaged in investment holding and provision of construction and maintenance services for nuclear power plant and other construction projects. The transaction was completed on November 30, 2016.

As the Company and the Acquired Companies are under common control of CGNPC, the above acquisition has constituted a business combination under common control. The assets and liabilities of the Acquired Companies have been recognized in the consolidated financial statements of the Group at the carrying amounts recognized previously in CGNPC's consolidated financial statements. The consolidated financial statements of the Group have been restated in the year ended 31 December, 2016 as if the combination had occurred prior to the start of the earliest period presented.

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

2. APPLICATION OF NEW AND REVISED INTERNATIONAL FINANCIAL REPORTING STANDARDS (“IFRSs”)

Amendments to IFRSs that are mandatorily effective for the current year

Except as described below, the application of the amendments has had no material impact on the disclosures or amounts recognized in Group’s consolidated financial statements.

Amendments to IAS 7 Disclosure Initiative

The Group has applied these amendments for the first time in the current year. The amendments require an entity to provide disclosures that enable users of financial statements to evaluate changes in liabilities arising from financing activities, including both cash and non-cash changes. In addition, the amendments also require disclosures on changes in financial assets if cash flows from those financial assets were, or future cash flows will be, included in cash flows from financing activities.

Specifically, the amendments require the following to be disclosed: (i) changes from financing cash flows; (ii) changes arising from obtaining or losing control of subsidiaries or other businesses; (iii) the effect of changes in foreign exchange rates; (iv) changes in fair values; and (v) other changes.

A reconciliation between the opening and closing balances of these items is provided in note 49. Consistent with the transition provisions of the amendments, the Group has not disclosed comparative information for the prior year. Apart from the additional disclosure in note 49, the application of these amendments has had no impact on the Group’s consolidated financial statements.

2. APPLICATION OF NEW AND REVISED INTERNATIONAL FINANCIAL REPORTING STANDARDS (“IFRSs”) (Continued)

New and revised IFRSs in issue but not yet effective

The Group has not early applied the following new and revised IFRSs that have been issued but are not yet effective:

IFRS 9	Financial Instruments ¹
IFRS 15	Revenue from Contracts with Customers and the related Amendments ¹
IFRS 16	Leases ²
IFRS 17	Insurance Contracts ⁴
IFRIC 22	Foreign Currency Transactions and Advance Consideration ¹
IFRIC 23	Uncertainty over Income Tax Treatments ²
Amendments to IFRS 2	Classification and Measurement of Share-based Payment Transactions ¹
Amendments to IFRS 4	Applying IFRS 9 <i>Financial Instruments</i> with IFRS 4 <i>Insurance Contracts</i> ¹
Amendments to IFRS 9	Prepayment Features with Negative Compensation ²
Amendments to IFRS 10 and IAS 28	Sale or Contribution of Assets between an Investor and its Associate or Joint Venture ³
Amendments to IAS 19	Plan Amendment, Curtailment or Settlement ²
Amendments to IAS 28	Long-term Interests in Associates and Joint Ventures ²
Amendments to IAS 40	Transfers of Investment Property ¹
Amendments to IAS 28	As part of the Annual Improvements to IFRS Standards 2014-2016 Cycle ¹
Amendments to IFRSs	Annual Improvements to IFRS Standards 2015-2017 Cycle ²

¹ Effective for annual periods beginning on or after January 1 2018

² Effective for annual periods beginning on or after January 1 2019

³ Effective for annual periods beginning on or after a date to be determined

⁴ Effective for annual periods beginning on or after January 1 2021

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

2. APPLICATION OF NEW AND REVISED INTERNATIONAL FINANCIAL REPORTING STANDARDS (“IFRSs”) (Continued)

New and amendments to IFRSs in issue but not yet effective (Continued)

IFRS 9 Financial Instruments

IFRS 9 introduces new requirements for the classification and measurement of financial assets, financial liabilities, general hedge accounting and impairment requirements for financial assets.

Key requirements of IFRS 9 which are relevant to the Group are:

- all recognized financial assets that are within the scope of IFRS 9 are required to be subsequently measured at amortized cost or fair value. Specifically, debt investments that are held within a business model whose objective is to collect the contractual cash flows, and that have contractual cash flows that are solely payments of principal and interest on the principal outstanding are generally measured at amortized cost at the end of subsequent accounting periods. Debt instruments that are held within a business model whose objective is achieved both by collecting contractual cash flows and selling financial assets, and that have contractual terms that give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding, are generally measured at fair value through other comprehensive income (“FVTOCI”). All other financial assets are measured at their fair value at subsequent accounting periods. In addition, under IFRS 9, entities may make an irrevocable election to present subsequent changes in the fair value of an equity investment (that is not held for trading) in other comprehensive income, with only dividend income generally recognized in profit or loss.
- in relation to the impairment of financial assets, IFRS 9 requires an expected credit loss model, as opposed to an incurred credit loss model under IAS 39 *Financial Instruments: Recognition and Measurement*. The expected credit loss model requires an entity to account for expected credit losses and changes in those expected credit losses at each reporting date to reflect changes in credit risk since initial recognition. In other words, it is no longer necessary for a credit event to have occurred before credit losses are recognized.

Based on the Group’s financial instruments and risk management policies as at December 31, 2017, the directors of the Company anticipate the following potential impact on initial application of IFRS 9:

2. APPLICATION OF NEW AND REVISED INTERNATIONAL FINANCIAL REPORTING STANDARDS (“IFRSs”) (Continued)

New and amendments to IFRSs in issue but not yet effective (Continued)

IFRS 9 Financial Instruments (Continued)

Classification and measurement

Equity securities classified as available-for-sale investments carried at cost less impairment: these securities qualified for designation as measured at FVTOCI under IFRS 9 and the Group will measure these securities at fair value at the end of subsequent reporting periods with fair value gains or losses to be recognized as other comprehensive income and accumulated in the investments revaluation reserve. Upon initial application of IFRS 9, the fair value gain of approximately RMB313,874,000 relating to these securities as disclosed in note 20, and the fair value gain of approximately RMB174,861,000 relating to these securities held by an associate, would be adjusted to investments revaluation reserve as at January 1, 2018.

All other financial assets and financial liabilities will continue to be measured on the same basis as are currently measured under IAS 39.

Impairment

In general, the directors of the Company anticipate that the application of the expected credit loss model of IFRS 9 will result in earlier provision of credit losses which are not yet incurred in relation to the Group’s financial assets measured at amortised costs and other items that subject to the impairment provisions upon application of IFRS 9 by the Group.

Based on the assessment by the directors of the Company, if the expected credit loss model were to be applied by the Group, the accumulated amount of impairment loss to be recognized by Group as at January 1, 2018 would not be significantly different as the accumulated amount recognized under IAS 39.

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

2. APPLICATION OF NEW AND REVISED INTERNATIONAL FINANCIAL REPORTING STANDARDS (“IFRSs”) (Continued)

New and amendments to IFRSs in issue but not yet effective (Continued)

IFRS 15 Revenue from Contracts with Customers

IFRS 15 was issued which establishes a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers. IFRS 15 will supersede the current revenue recognition guidance including IAS 18 *Revenue*, IAS 11 *Construction Contracts* and the related interpretations when it becomes effective.

The core principle of IFRS 15 is that an entity should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. Specifically, the Standard introduces a 5-step approach to revenue recognition:

- Step 1: Identify the contract(s) with a customer
- Step 2: Identify the performance obligations in the contract
- Step 3: Determine the transaction price
- Step 4: Allocate the transaction price to the performance obligations in the contract
- Step 5: Recognize revenue when (or as) the entity satisfies a performance obligation

Under IFRS 15, an entity recognizes revenue when (or as) a performance obligation is satisfied, i.e. when control of the goods or services underlying the particular performance obligation is transferred to the customer. Far more prescriptive guidance has been added in IFRS 15 to deal with specific scenarios. Furthermore, extensive disclosures are required by IFRS 15.

In 2016, the International Accounting Standards Boards issued Clarifications to IFRS 15 in relation to the identification of performance obligations, principal versus agent considerations, as well as licensing application guidance.

The directors of the Company anticipate that the application of IFRS 15 in the future may result in more disclosures. However, the directors of the Company do not anticipate that the application of IFRS 15 will have a material impact on the timing and amounts of revenue recognized in the respective reporting periods.

2. APPLICATION OF NEW AND REVISED INTERNATIONAL FINANCIAL REPORTING STANDARDS (“IFRSs”) (Continued)

New and amendments to IFRSs in issue but not yet effective (Continued)

IFRS 16 Leases

IFRS 16 introduces a comprehensive model for the identification of lease arrangements and accounting treatments for both lessors and lessees. IFRS 16 will supersede IAS 17 *Leases* and the related interpretations when it becomes effective.

IFRS 16 distinguishes lease and service contracts on the basis of whether an identified asset is controlled by a customer. Distinctions of operating leases and finance leases are removed for lessee accounting, and is replaced by a model where a right-of-use asset and a corresponding liability have to be recognized for all leases by lessees, except for short-term leases and leases of low value assets.

The right-of-use asset is initially measured at cost and subsequently measured at cost (subject to certain exceptions) less accumulated depreciation and impairment losses, adjusted for any remeasurement of the lease liability. The lease liability is initially measured at the present value of the lease payments that are not paid at that date. Subsequently, the lease liability is adjusted for interest and lease payments, as well as the impact of lease modifications, amongst others. For the classification of cash flows, the Group currently presents upfront prepaid lease payments as investing cash flows in relation to leasehold lands for owned use and those classified as investment properties while other operating lease payments are presented as operating cash flows. Upon application of IFRS 16, lease payments in relation to lease liability will be allocated into a principal and an interest portion which will be presented as financing cash flows by the Group.

Under IAS 17, the Group has already recognized prepaid lease payments for leasehold lands where the Group is a lessee. The application of IFRS 16 may result in potential changes in classification of the asset depending on whether the Group presents right-of-use assets separately or within the same line item at which the corresponding underlying assets would be presented if they were owned.

In contrast to lessee accounting, IFRS 16 substantially carries forward the lessor accounting requirements in IAS 17, and continues to require a lessor to classify a lease either as an operating lease or a finance lease.

Furthermore, extensive disclosures are required by IFRS 16.

As at December 31, 2017, the Group as lessee has non-cancellable operating lease commitments of RMB1,013,018,000 as disclosed in note 43. A preliminary assessment indicates that these arrangements will meet the definition of a lease. Upon application of IFRS 16, the Group will recognize a right-of-use asset and a corresponding liability in respect of all these leases unless they qualify for low value or short-term leases.

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

2. APPLICATION OF NEW AND REVISED INTERNATIONAL FINANCIAL REPORTING STANDARDS (“IFRSs”) (Continued)

New and amendments to IFRSs in issue but not yet effective (Continued)

IFRS 16 Leases (Continued)

In addition, the Group currently considers refundable rental deposits paid of RMB12,393,000 and rental deposits received of RMB626,000 as rights and obligations under leases to which IAS 17 applies. Based on the definition of lease payments under IFRS 16, such deposits are not payments relating to the right to use the underlying assets, accordingly, the carrying amounts of such deposits may be adjusted to amortized cost and such adjustments are considered as additional lease payments. Adjustments to refundable rental deposits paid would be included in the carrying amount of right-of-use assets. Adjustments to refundable rental deposits received would be considered as advance lease payments.

Furthermore, the application of new requirements may result in changes in measurement, presentation and disclosure as indicated above.

Amendments to IFRS 2 Classification and Measurement of Share-based Payment Transactions

The amendments clarify the following:

1. In estimating the fair value of a cash-settled share-based payment, the accounting for the effects of vesting and non-vesting conditions should follow the same approach as for equity-settled share-based payments.
2. Where tax law or regulation requires an entity to withhold a specified number of equity instruments equal to the monetary value of the employee’s tax obligation to meet the employee’s tax liability which is then remitted to the tax authority, i.e. the share-based payment arrangement has a ‘net settlement feature’, such an arrangement should be classified as equity-settled in its entirety, provided that the share-based payment would have been classified as equity-settled had it not included the net settlement feature.
3. A modification of a share-based payment that changes the transaction from cash-settled to equity-settled should be accounted for as follows:
 - (i) the original liability is derecognized;
 - (ii) the equity-settled share-based payment is recognized at the modification date fair value of the equity instrument granted to the extent that services have been rendered up to the modification date; and
 - (iii) any difference between the carrying amount of the liability at the modification date and the amount recognized in equity should be recognized in profit or loss immediately.

2. APPLICATION OF NEW AND REVISED INTERNATIONAL FINANCIAL REPORTING STANDARDS (“IFRSs”) (Continued)

New and amendments to IFRSs in issue but not yet effective (Continued)

Amendments to IFRS 2 Classification and Measurement of Share-based Payment Transactions (Continued)

The directors of the Company do not anticipate the application of amendments to IFRS 2 will have a material impact to the Group’s consolidated financial statements.

Except as described above, the directors of the Company anticipate that the application of the other new and amendments to IFRSs and interpretations will have a material impact on the Group’s consolidated financial statements in the foreseeable future.

3. SIGNIFICANT ACCOUNTING POLICIES

The consolidated financial statements have been prepared in accordance with IFRSs. In addition, the consolidated financial statements include applicable disclosures required by the Rules Governing the Listing of Securities on the Stock Exchange (“Listing Rules”) and by the Hong Kong Companies Ordinance (“CO”).

The consolidated financial statements have been prepared on the historical cost basis except for certain financial instruments that are measured at fair values, as explained in the accounting policies set out below. Historical cost is generally based on the fair value of the consideration given in exchange for goods and services.

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, regardless of whether that price is directly observable or estimated using another valuation technique. In estimating the fair value of an asset or a liability, the Group takes into account the characteristics of the asset or liability at the measurement date. Fair value for measurement and/or disclosure purposes in the consolidated financial statements is determined on such a basis, except for share-based payment transactions that are within the scope of IFRS 2 *Share-based payment*, leasing transactions that are within the scope of IAS 17 *Leases* and measurements that have some similarities to fair value but are not fair value, such as net realizable value in IAS 2 *Inventories* or value in use in IAS 36 *Impairment of assets*.

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

3. SIGNIFICANT ACCOUNTING POLICIES (Continued)

A fair value measurement of a non-financial asset takes into account a market participant's ability to generate economic benefits by using the asset in its highest and best use or by selling it to another market participant that would use the asset in its highest and best use.

In addition, for financial reporting purposes, 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 quoted prices included within Level 1, that are observable for the asset or liability, either directly or indirectly; and
- Level 3 inputs are unobservable inputs for the asset or liability.

The principal accounting policies are set out below.

Basis of consolidation

The consolidated financial statements incorporate the financial statements of the Company and entities controlled by the Company and its subsidiaries. Control is achieved when the Group:

- 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 to affect its returns.

The Group reassesses whether or not it controls an investee if facts and circumstances indicate that there are changes to one or more of the three elements of control listed above.

Consolidation of a subsidiary begins when the Group obtains control over the subsidiary and ceases when the Group loses control of the subsidiary. Specifically, income and expenses of a subsidiary acquired or disposed of during the year are included in the consolidated statement of profit or loss and other comprehensive income from the date the Group gains control until the date when the Group ceases to control the subsidiary.

3. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Basis of consolidation (Continued)

Profit or loss and each component of other comprehensive income are attributed to the owners of the Company and to the non-controlling interests. Total comprehensive income of subsidiaries is attributed to the owners of the Company and to the non-controlling interests even if this results in the non-controlling interests having a deficit balance.

The allocation to non-controlling interests represents the proportion of total comprehensive income not held by group entities. In case where the Group's associate is a non-controlling interests of the Group's non-wholly owned subsidiary, non-controlling interests is measured as the proportion not held by the group entities of the Group..

When necessary, adjustments are made to the financial statements of subsidiaries to bring their accounting policies into line with the Group's accounting policies.

All intragroup assets and liabilities, equity, income, expenses and cash flows relating to transactions between members of the Group are eliminated in full on combination.

Non-controlling interests in subsidiaries are presented separately from the Group's equity therein.

Changes in the Group's ownership interests in existing subsidiaries

Changes in the Group's ownership interests in existing subsidiaries that do not result in the Group losing control over the subsidiaries are accounted for as equity transactions. The carrying amounts of the Group's relevant components of equity (including reserves and the non-controlling interests' proportionate share of recognized amount of the subsidiary's identifiable net assets) are adjusted to reflect the changes in their relative interests in the subsidiaries. Any difference between the amount by which the non-controlling interests are adjusted after re-attribution of the relevant equity impairment, and the fair value of the consideration paid or received is recognized directly in capital reserve and attributed to owners of the Company.

When the Group loses control of a subsidiary, the assets and liabilities of that subsidiary and non-controlling interest (if any) are derecognized. A gain or loss is recognized in profit or loss and is calculated as the difference between (i) the aggregate of the fair value of the consideration received and the fair value of any retained interest and (ii) the carrying amount of the assets and liabilities of the subsidiary attributable to the owners of the Company. All amounts previously recognized in other comprehensive income in relation to that subsidiary are accounted for as if the Group had directly disposed of the related assets or liabilities of the subsidiary (i.e. reclassified to profit or loss or transferred to another category of equity as specified/permitted by applicable IFRSs). The fair value of any investment retained in the former subsidiary at the date when control is lost is regarded as the fair value on initial recognition for subsequent accounting under IAS 39, or, when applicable, the cost on initial recognition of an investment in an associate or a joint venture.

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

3. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Goodwill

Goodwill arising on an acquisition of a business is carried at cost as established at the date of acquisition of the business (see accounting policy below) less accumulated impairment losses, if any.

For the purposes of impairment testing, goodwill is allocated to each of the Group's cash-generating units that is expected to benefit from the synergies of the combination, which represent the lowest level at which the goodwill is monitored for internal management purposes and not larger than an operating segment.

A cash-generating unit to which goodwill has been allocated is tested for impairment annually or more frequently when there is indication that the unit may be impaired. For goodwill arising on an acquisition in a reporting period, the cash-generating unit to which goodwill has been allocated is tested for impairment before the end of that reporting period. If the recoverable amount is less than its carrying amount, the impairment loss is allocated first to reduce the carrying amount of any goodwill and then to the other assets on a pro-rata basis based on the carrying amount of each asset in the unit.

On disposal of the relevant cash-generating unit, the attributable amount of goodwill is included in the determination of the amount of profit or loss on disposal.

The Group's policy for goodwill arising on the acquisition of an associate and a joint venture is described below.

Interests in associates and joint ventures

An associate is an entity over which the Group has significant influence. Significant influence is the power to participate in the financial and operating policy decisions of the investee but is not control or joint control over those policies.

A joint venture is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the joint arrangement. 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.

3. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Interests in associates and joint ventures (Continued)

The results and assets and liabilities of associates or joint ventures are incorporated in the consolidated financial statements using the equity method of accounting. The financial statements of associates or joint ventures used for equity method accounting purpose are prepared using uniform accounting policies as those of the Group for like transactions and events in similar circumstances. Under the equity method, an interest in an associate or a joint venture is initially recognized in the consolidated statement of financial position at cost and adjusted thereafter to recognize the Group's share of the profit or loss and other comprehensive income of the associate or joint venture. Changes in net assets of the associate/joint venture other than profit of loss and other comprehensive income are not accounted for unless such changes resulted in changes in ownership interest held by the Group. When the Group's share of losses of an associate or a joint venture exceeds the Group's interest in that associate or joint venture (which includes any long-term interests that, in substance, form part of the Group's net interest in the associate or joint venture), the Group discontinues recognizing its share of further losses. Additional losses are recognized only to the extent that the Group has incurred legal or constructive obligations or made payments on behalf of the associate or joint venture.

An investment in an associate or a joint venture is accounted for using the equity method from the date on which the investee becomes an associate or a joint venture. On acquisition of the investment in an associate or a joint venture, any excess of the cost of the investment over the Group's share of the net fair value of the identifiable assets and liabilities of the investee is recognized as goodwill, which is included within the carrying amount of the investment. Any excess of the Group's share of the net fair value of the identifiable assets and liabilities over the cost of the investment, after reassessment, is recognized immediately in profit or loss in the period in which the investment is acquired.

The requirements of IAS 39 are applied to determine whether it is necessary to recognize any impairment loss with respect to the Group's interest in an associate or a joint venture. When necessary, the entire carrying amount of the investment (including goodwill) is tested for impairment in accordance with IAS 36 as a single asset by comparing its recoverable amount (higher of value in use and fair value less costs of disposal) with its carrying amount. Any impairment loss recognized forms part of the carrying amount of the investment. Any reversal of that impairment loss is recognized in accordance with IAS 36 to the extent that the recoverable amount of the investment subsequently increases.

When the Group ceases to have significant influence over an associate or joint control over a joint venture, it is accounted for as a disposal of the entire interest in the investee with a resulting gain or loss being recognized in profit or loss.

When a group entity transacts with an associate or a joint venture of the Group, profits and losses resulting from the transactions with the associate or joint venture are recognized in the consolidated financial statements only to the extent of interests in the associate or joint venture that are not related to the Group.

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

3. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Merger accounting for business combination involving entities under common control

The consolidated financial statements incorporate the financial statements items of the combining entities or businesses in which the common control combination occurs as if they had been combined from the date when the combining entities or businesses first came under the control of the controlling party.

The net assets of the combining entities or businesses are consolidated using the existing book values from the controlling party's perspective. No amount is recognized in respect of goodwill or excess of acquirer's interest in the net fair value of acquiree's identifiable assets, liabilities and contingent liabilities over cost at the time of common control combination, to the extent of the continuation of the controlling party's interest.

The consolidated statements of profit or loss and other comprehensive income include the results of each of the combining entities or business from the earliest date presented or since the date when the combining entities or businesses first came under the common control, where this is a short period.

The comparative amounts in the consolidated financial statements are presented as if the entities or businesses had been combined at the end of the previous reporting period or when they first came under common control, whichever is shorter.

Business combinations other than involving entities under common control

Business combinations other than involving entities under common control are accounted for using the acquisition method. The consideration transferred in a business combination is measured at fair value, which is calculated as the sum of the acquisition-date fair values of the assets transferred by the Group, liabilities incurred by the Group to the former owners of the acquiree and the equity interests issued by the Group in exchange for control of the acquiree. Acquisition-related costs are generally recognized in profit or loss as incurred.

3. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Business combinations other than involving entities under common control (Continued)

At the acquisition date, the identifiable assets acquired and the liabilities assumed are recognized at their fair value, except that:

- deferred tax assets or liabilities, and assets or liabilities related to employee benefit arrangements are recognized and measured in accordance with IAS 12 *Income Taxes* and IAS 19 *Employee Benefits* respectively;
- liabilities or equity instruments related to share-based payment arrangements of the acquiree or share-based payment arrangements of the Group entered into to replace share-based payment arrangements of the acquiree are measured in accordance with IFRS 2 *Share-based Payment* at the acquisition date; and
- assets (or disposal groups) that are classified as held for sale in accordance with IFRS 5 *Non-current Assets Held for Sale and Discontinued Operations* are measured in accordance with that standard.

Goodwill is measured as the excess of the sum of the consideration transferred, the amount of any non-controlling interests in the acquiree, and the fair value of the acquirer's previously held equity interest in the acquiree (if any) over the net amount of the identifiable assets acquired and the liabilities assumed as at acquisition date. If, after re-assessment, the net amount of the identifiable assets acquired and liabilities assumed exceeds the sum of the consideration transferred, the amount of any non-controlling interests in the acquiree and the fair value of the acquirer's previously held interest in the acquiree (if any), the excess is recognized immediately in profit or loss as a bargain purchase gain.

Non-controlling interests that are present ownership interests and entitle their holders to a proportionate share of the relevant subsidiary's net assets in the event of liquidation are initially measured at fair value or at the non-controlling interests' proportionate share of the recognized amounts of the acquiree's identifiable net assets. The choice of measurement basis is made on a transaction-by-transaction basis.

When a business combination is achieved in stages, the Group's previously held equity interest in the acquiree is remeasured to fair value at the acquisition date (i.e. the date when the Group obtains control), and the resulting gain or loss, if any, is recognized in profit or loss. Amounts arising from interests in the acquiree prior to the acquisition date that have previously been recognized in other comprehensive income are reclassified to profit or loss where such treatment would be appropriate if that interest were disposed of.

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

3. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Business combinations other than involving entities under common control (Continued)

If the initial accounting for a business combination is incomplete by the end of the reporting period in which the combination occurs, the Group reports provisional amounts for the items for which the accounting is incomplete. Those provisional amounts are adjusted during the measurement period (see above), and additional assets or liabilities are recognized, to reflect new information obtained about facts and circumstances that existed at the acquisition date that, if known, would have affected the amounts recognized at that date.

Non-current assets held for sale

Non-current assets and disposal groups are classified as held for sale if their carrying amount will be recovered principally through a sale transaction rather than through continuing use. This condition is regarded as met only when the asset (or disposal group) is available for immediate sale in its present condition subject only to terms that are usual and customary for sales of such asset (or disposal group) and its sale is highly probable. Management must be committed to the sale, which should be expected to qualify for recognition as a completed sale within one year from the date of classification.

When the Group is committed to a sale plan involving loss of control of subsidiary, all of the assets and liabilities of that subsidiary are classified as held for sale when the criteria described above are met, regardless of whether the Group will retain a non-controlling interest in its former subsidiary after the sale.

When the Group is committed to a sale plan involving disposal of an investment, or a portion of an investment, in an associate or a joint venture, the investment or the portion of the investment that will be disposal is classified as held for sale when the criteria described above are met, and the Group discontinues the use of the equity method in relation to the portion that is classified as held for sale. Any retained portion of an investment in an associate or a joint venture that has not been classified as held for sale continues to be accounted for using the equity method. The Group discontinues the use of the equity method at the time of disposal when the disposal results in the Group losing significant influence over the associate or joint venture.

After the disposal takes place, the Group accounts for any retained interest in the associate or joint venture in accordance with IAS 39 unless the retained interest continues to be an associate or a joint venture, in which case the Group uses the equity method (see the accounting policy regarding investments in associates or joint ventures above).

Non-current assets (and disposal groups) classified as held for sale are measured at the lower of their carrying amount and fair value less costs to sell.

3. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Revenue recognition

Revenue is measured at the fair value of the consideration received or receivable and represents amounts receivable for goods sold and services provided in the normal course of business, net of sales related taxes.

Revenue is recognized when the amount of revenue can be reliably measured; when it is probable that future economic benefits will flow to the Group and when specific criteria have been met for each of the Group's activities, as described below.

Revenue from the sale of goods is recognized when the goods are delivered and titles have passed.

Revenue from sales of electricity are recognized based upon output delivered. Revenue is recognized upon transmission of electricity to the grid companies.

Revenue from sales of properties in the ordinary course of business are recognized when the respective properties have been completed and delivered to the buyers.

Revenue from construction contracts is recognized using the percentage of completion method by reference to the completion assessed on the basis of the contract costs incurred for work performance to date as a proportion of the estimate total contract costs.

Service income is recognized as services are rendered.

Design and management service revenue is recognized by reference to the percentage of completion method, measured by reference to the progress of work carried out during the relevant period and agreed with the customers.

Interest income is accrued on a time basis, by reference to the principal outstanding and at the effective interest rate applicable, which is the rate that exactly discounts the estimated future cash receipts through the expected life of the financial asset to that asset's net carrying amount on initial recognition.

Dividend income from investments is recognized when the shareholders' rights to receive payment have been established.

Deposits and instalments received from customers for contract work prior to meeting the revenue recognition criteria are included in the consolidated statement of financial position under current liabilities.

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

3. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Government grants

Government grants are not recognized until there is reasonable assurance that the Group will comply with the conditions attaching to them and that the grants will be received.

Government grants are recognized in profit or loss on a systematic basis over the periods in which the Group recognizes as expenses the related costs for which the grants are intended to compensate. Specifically, government grants whose primary condition is that the Group should purchase, construct or otherwise acquire non-current assets are recognized as deferred income in the consolidated statement of financial position and transferred to profit or loss on a systematic and rational basis over the useful lives of the related assets.

Government grants that are receivable as compensation for expenses or losses already incurred or for the purpose of giving immediate financial support to the Group with no future related costs are recognized in profit or loss in the period in which they become receivable.

Property, plant and equipment

Property, plant and equipment including buildings held for use in the production or supply of goods or services, or for administrative purposes (other than construction in progress), are stated in the consolidated statement of financial position at cost or deemed cost less subsequent accumulated depreciation and accumulated impairment losses, if any.

Decommissioning and radioactive waste management costs resulting from decommissioning of nuclear installations operated by the Group are included as part of the related assets. The costs of the day-to-day servicing of property, plant and equipment are recognized in the profit or loss as incurred.

Depreciation is recognized so as to write off the cost of items of property, plant and equipment (other than nuclear facilities and construction in progress) less their residual values over their estimated useful lives, using the straight-line method. The estimated useful lives, residual values and depreciation method are reviewed at the end of each reporting period, with the effect of any changes in estimate accounted for on a prospective basis.

Nuclear facilities are depreciated using the unit of production method based on the expected remaining production volume derived from the estimated useful lives.

Construction in progress is carried at cost, less recognized impairment loss, if any. Costs include professional fees and, for qualifying assets, borrowing costs capitalized in accordance with the Group's accounting policy. Construction in progress is classified to the appropriate category of property, plant and equipment when completed and ready for intended use. Depreciation of these assets, on the same basis as other property assets, commences when the assets are ready for their intended use.

3. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Property, plant and equipment (Continued)

Where an owner-occupied property becomes an investment property because its use has changed as evidenced by end of owner-occupation, the cost and accumulated depreciation of that item at the date of transfer are transferred to investment property for subsequent measurement and disclosure purposes.

An item of property, plant and equipment is derecognized upon disposal or when no future economic benefits are expected to arise from the continued use of the asset. Any gain or loss arising on the disposal or retirement of an item of property, plant and equipment is determined as the difference between the sales proceeds and the carrying amount of the asset and is recognized in profit or loss.

Intangible assets

Intangible assets acquired separately

Intangible assets with finite useful lives that are acquired separately are carried at cost less accumulated amortization and accumulated impairment losses. Amortization begins when the intangible asset is ready for use and is recognized on a straight-line basis over their estimated useful lives. The estimated useful life and amortization method are reviewed at the end of each reporting period, with the effect of any changes in estimate being accounted for on a prospective basis.

Internally-generated intangible assets

Expenditure on research activities is recognized as an expense in the period in which it is incurred.

An internally-generated intangible asset arising from development (or from the development phase of an internal project) is recognized if, and only if, all of the following have been demonstrated:

- The technical feasibility of completing the intangible asset so that it will be available for use or sale;
- The intention to complete the intangible asset and use or sell it;
- The ability to use or sell the intangible asset;
- How the intangible asset will generate probable future economic benefits;
- The availability of adequate technical, financial and other resources to complete the development and to use or sell the intangible asset; and
- The ability to measure reliably the expenditure attributable to the intangible asset during its development.

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

3. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Intangible assets (Continued)

Internally-generated intangible assets (Continued)

The amount initially recognized for internally-generated intangible assets is the sum of the expenditure incurred from the date when the intangible asset first meets the recognition criteria listed above. Where no internally-generated intangible asset can be recognized, development expenditure is recognized in profit or loss in the period in which it is incurred.

Subsequent to initial recognition, internally-generated intangible assets are reported at cost less accumulated amortization and accumulated impairment losses, on the same basis as intangible assets that are acquired separately.

Facilitation and related costs represent salaries and other directly attributable expenditure incurred by the Group for training the nuclear engineers for future operation and management of nuclear power units. The amount is amortized on a straight-line basis over the remaining terms of the employment contracts of the nuclear engineers after the completion of training.

Derecognition of intangible assets

An intangible asset is derecognized on disposal, or when no future economic benefits are expected from use or disposal. Gains or losses arising from derecognition of an intangible asset, measured as the difference between the net disposal proceeds and the carrying amount of the asset, are recognized in profit or loss when the asset is derecognized.

Investment properties

Investment properties are properties held to earn rentals and/or for capital appreciation. Investment properties are measured initially at cost, including directly attributable expenditure. Subsequent to initial recognition, investment properties are stated at cost less accumulated depreciation and any impairment losses. Depreciation is recognized so as to write off the cost of each item of investment property over its estimated useful life and after taking into account its estimated residual value, using straight-line method.

Where an item of investment property becomes owner-occupied property because its use has changed as evidenced by commencement of owner-occupation, the cost and accumulated depreciation of that item at the date of transfer are transferred to property, plant and equipment for subsequent measurement and disclosure purposes.

3. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Investment properties (Continued)

An investment property is derecognized upon disposal or when the investment property is permanently withdrawn from use and no future economic benefits are expected from the disposal. Any gain or loss arising on derecognition of the property (calculated as the difference between the net disposal proceeds and the carrying amount of the asset) is included in profit or loss in the period in which the property is derecognized.

Impairment of tangible and intangible assets other than goodwill

At the end of each reporting period, the Group and the Company reviews the carrying amounts of its tangible and intangible assets to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss (if any). When it is not possible to estimate the recoverable amount of an individual asset, the Group estimates the recoverable amount of the cash-generating unit to which the asset belongs. When a reasonable and consistent basis of allocation can be identified, corporate assets are also allocated to individual cash-generating units, or otherwise they are allocated to the smallest group of cash-generating units for which a reasonable and consistent allocation basis can be identified.

Intangible assets not yet available for use are tested for impairment at least annually, and whenever there is an indication that they may be impaired.

Recoverable amount is the higher of fair value less costs of disposal and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset (or a cash-generating unit) for which the estimates of future cash flows have not been adjusted.

If the recoverable amount of an asset (or a cash-generating unit) is estimated to be less than its carrying amount, the carrying amount of the asset (or a cash-generating unit) is reduced to its recoverable amount. In allocating the impairment loss, the impairment loss is allocated assets on a pro-rata basis based on the carrying amount of each asset in the unit. The carrying amount of an asset is not reduced below the highest of its fair value less costs of disposal (if measurable), its value in use (if determinable) and zero. The amount of the impairment loss that would otherwise have been allocated to the asset is allocated pro rata to the other assets of the unit. An impairment loss is recognized immediately in profit or loss.

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

3. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Impairment of tangible and intangible assets other than goodwill (Continued)

Where an impairment loss subsequently reverses, the carrying amount of the asset (or a cash-generating unit) is increased to the revised estimate of its recoverable amount, but so that the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognized for the asset (or a cash-generating unit) in prior years. A reversal of an impairment loss is recognized immediately in profit or loss.

Construction contracts

Where the outcome of a construction contract can be estimated reliably, revenue and costs are recognized by reference to the stage of completion of the contract activity at the end of the reporting period, measured based on the proportion that contract costs incurred for work performed to date relative to the estimated total contract costs, except where this would not be representative of the stage of completion. Variations in contract work, claims and incentive payments are included to the extent that the amount can be measured reliably and its receipt is considered probable.

Where the outcome of a construction contract cannot be estimated reliably, contract revenue is recognized to the extent of contract costs incurred that it is probable will be recoverable. Contract costs are recognized as expenses in the period in which they are incurred.

When it is probable that total contract costs will exceed total contract revenue, the expected loss is recognized as an expense immediately.

Where contract costs incurred to date plus recognized profits less recognized losses exceed progress billings, the surplus is shown as amounts due from customers for contract work. For contracts where progress billings exceed contract costs incurred to date plus recognized profits less recognized losses, the surplus is shown as amounts due to customers for contract work. Amounts received before the related work is performed are included in the consolidated statements of financial position, as a liability, as receipt in advance. Amounts billed for work performed but not yet paid by the customer are included in the consolidated statements of financial position under trade receivables.

3. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Leasing

Leases are classified as finance leases whenever the terms of the lease transfer substantially all the risks and rewards of ownership to the lessee. All other leases are classified as operating leases.

The Group as lessor

Rental income from operating leases is recognized in profit or loss on a straight-line basis over the relevant lease term.

The Group as lessee

Operating lease payments including the cost of acquiring land held under operating lease, are recognized as an expense on a straight-line basis over the relevant lease term.

Leasehold land and building

When the Group makes payments for a property interest which includes both leasehold land and building elements, the Group assesses the classification of each element separately based on the assessment as to whether substantially all the risks and rewards incidental to ownership of each element have been transferred to the Group, unless it is clear that both elements are operating leases in which case the entire property is accounted as an operating lease. Specifically, the entire consideration (including any lump-sum upfront payments) are allocated between the leasehold land and the building elements in proportion to the relative fair values of the leasehold interests in the land element and building element at initial recognition.

To the extent the allocation of the relevant payments can be made reliably, interest in leasehold land that is accounted for as an operating lease is presented as "prepaid lease payments" in the consolidated statement of financial position and is amortized over the lease term on a straight-line basis. When the payments cannot be allocated reliably between the leasehold land and building elements, the entire property is generally classified as if the leasehold land is under finance lease.

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

3. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Foreign currencies

In preparing the financial statements of each individual group entity, transactions in currencies other than the functional currency of that entity (foreign currencies) are recorded in the respective functional currency (i.e. the currency of the primary economic environment in which the entity operates) at the rates of exchanges prevailing on the dates of the transactions. At the end of each reporting period, monetary items denominated in foreign currencies are retranslated at the rates prevailing at that date. Non-monetary items that are measured in terms of historical cost in a foreign currency are not retranslated.

Exchange differences arising on the settlement of monetary items, and on the retranslation of monetary items, are recognized in profit or loss in the period in which they arise.

For the purposes of presenting the consolidated financial statements, the assets and liabilities of the Group's foreign operations are translated into the presentation currency of the Group (i.e. RMB) at the rate of exchange prevailing at the end of the reporting period. Income and expenses are translated at the average exchange rates for the year, unless exchange rates fluctuate significantly during the year, in which case, the exchange rates prevailing at the dates of transactions are used. Exchange differences arising, if any, are recognized in other comprehensive income and accumulated in equity under the heading of translation reserve (attributed to non-controlling interests as appropriate).

On the disposal of a foreign operation (i.e. a disposal of the Group's entire interest in a foreign operation, or a disposal involving loss of control over a subsidiary that includes a foreign operation), all of the exchange differences accumulated in equity in respect of that operation attributable to the owners of the Company are reclassified to profit or loss.

In addition, in relation to a partial disposal of a subsidiary that does not result in the Group losing control over the subsidiary, the proportionate share of accumulated exchange differences are re-attributed to non-controlling interests and are not recognized in profit or loss. For all other partial disposals (i.e. partial disposals of associates or joint arrangements that do not result in the Group losing significant influence or joint control), the proportionate share of the accumulated exchange differences is reclassified to profit or loss.

Borrowing costs

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, which are assets that necessarily take a substantial period of time to get ready for their intended use or sale, are added to the cost of those assets until such time as the assets are substantially ready for their intended use or sale.

All other borrowing costs are recognized in profit or loss in the period in which they are incurred.

3. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Retirement benefit costs

Payments to state-managed retirement benefits schemes which are classified as defined contribution plans are recognized as an expense when employees have rendered service entitling them to the contributions.

Short-term and other long-term employee benefits

Short-term employee benefits are recognized at the undiscounted amount of the benefits expected to be paid as and when employees rendered the services. All short-term employee benefits are recognized as an expense unless another IFRS requires or permits the inclusion of the benefit in the cost of an asset.

A liability is recognized for benefits accruing to employees (such as wages and salaries, annual leave and sick leave) after deducting any amount already paid.

Liabilities recognized in respect of other long-term employee benefits are measured at the present value of the estimated future cash outflows expected to be made by the Group in respect of services provided by employees up to the reporting date. Any changes in the liabilities' carrying amounts resulting from service cost, interest and remeasurements are recognized in profit or loss except to the extent that another IFRS requires or permits their inclusion in the cost of an asset.

Share-based payment arrangements

Cash-settle share-based payment

For cash-settled share-based payments, a liability is recognized for the services acquired, measured initially at the fair value of the liability. At the end of each reporting period until the liability is settled, and at the date of settlement, the fair value of the liability is remeasured, with any changes in fair value recognized in profit or loss for the year.

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

3. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Taxation

Income tax expense represents the sum of the tax currently payable and deferred tax.

The tax currently payable is based on taxable profit for the year. Taxable profit differs from 'profit before taxation' as reported in the consolidated statement of profit or loss and other comprehensive income because it excludes items of income or expense that are taxable or deductible in other years and it further excludes items that are never taxable or deductible. The Group's liability for current tax is calculated using tax rates that have been enacted or substantively enacted by the end of the reporting period.

Deferred tax is recognized on temporary differences between the carrying amounts of assets and liabilities in the consolidated financial statements and the corresponding tax bases used in the computation of taxable profit. Deferred tax liabilities are generally recognized for all taxable temporary differences. Deferred tax assets are generally recognized for all deductible temporary differences to the extent that it is probable that taxable profits will be available against which those deductible temporary differences can be utilized. Such assets and liabilities are not recognized if the temporary difference arises from initial recognition of goodwill or from the initial recognition (other than in a business combination) of other assets and liabilities in a transaction that affects neither the taxable profit nor the accounting profit.

Deferred tax liabilities are recognized for taxable temporary differences associated with investments in subsidiaries and interests in associates and joint ventures, except where the Group is able to control 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 sufficient taxable profits against which to utilize the benefits of the temporary differences and they are expected to reverse in the foreseeable future.

The carrying amount of deferred tax assets is reviewed at the end of each reporting period and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the period in which the liability is settled or the asset is realized, based on tax rate (and tax laws) that have been enacted or substantively enacted by the end of the reporting period.

The measurement of deferred tax liabilities and assets reflects the tax consequences that would follow from the manner in which the Group expects, at the end of the reporting period, to recover or settle the carrying amount of its assets and liabilities.

3. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Taxation (Continued)

Current and deferred tax are recognized in profit or loss, except when they relate to items that are recognized in other comprehensive income or directly in equity, in which case, the current and deferred tax are also recognized in other comprehensive income or directly in equity respectively. Where current tax or deferred tax arises from the initial accounting for a business combination, the tax effect is included in the accounting for the business combination.

Inventories

Inventories are stated at the lower of cost and net realizable value. Costs of nuclear fuel are measured using specific identification method. Costs of other inventories are calculated using weighted average method. Net realizable value represents the estimated selling price for inventories less costs necessary to make the sale.

Provisions

Pursuant to the rules and requirements in the PRC, the Group is obliged to manage and dispose spent fuel and low and medium level radioactive waste, as well as decommission the nuclear facilities in relation to its nuclear power operation.

As such, provisions are recognized when the Group has a present obligation (legal or constructive) as a result of a past event, it is probable that the Group will be required to settle that obligation, and a reliable estimate can be made of the amount of the obligation. Provisions are measured at the best estimate of the consideration required to settle the present obligation at the end of the reporting period, taking into account the risks and uncertainties surrounding the obligation. For provision of spent fuel management, the management of the Group estimates the future disposal costs for fuel used. For provision of low and medium level radioactive waste management, the management of the Group estimates the cost required for disposing radioactive waste resulting from the nuclear power generating activities. Since the effect of the time value of money is not material, the expected cash flows on disposing spent fuel and radioactive waste have not been discounted.

In addition, the management of the Group estimates the cost required for the decommissioning of the nuclear plant in the future, including future construction costs associated with certain enabling facilities, such as disposal facilities for nuclear waste. The provision for nuclear plant decommissioning is recorded based on the estimated future decommissioning expenditures discounted to its present value using a current pre-tax rate that reflects the risks specific to the liability. The estimated future cash forecasts are adjusted for inflation using a rate that is derived on the basis of the historical inflation rates. The unwinding of the discount on this provision is charged to the profit or loss.

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

3. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Provisions (Continued)

Decommissioning costs are added to the carrying amount of the related property, plant and equipment and depreciated over their estimated useful lives. Changes in the estimated amount or timing of the underlying future cash flows are dealt with prospectively by recording an adjustment to the provision, with a corresponding adjustment to property, plant and equipment.

Financial instruments

Financial assets and financial liabilities are recognized in the consolidated statement of financial position when a group entity becomes a party to the contractual provisions of the instruments.

Financial assets and financial liabilities are initially measured at fair value. Transaction costs that are directly attributable to the acquisition or issue of financial assets and financial liabilities (other than financial assets and financial liabilities at fair value through profit or loss) are added to or deducted from the fair value of the financial assets or financial liabilities, as appropriate, on initial recognition. Transaction costs directly attributable to the acquisition of financial assets or financial liabilities at fair value through profit or loss are recognized immediately in profit or loss.

Financial assets

The Group's financial assets are classified into financial assets at fair value through profit or loss ("FVTPL"), available-for-sale investments ("AFSs") and loans and receivables. The classification depends on the nature and purpose of the financial assets and is determined at the time of initial recognition. All regular way purchases or sales of financial assets are recognized and derecognized on a trade date basis. Regular way purchases or sales are purchases or sales of financial assets that require delivery of assets within the time frame established by regulation or convention in the marketplace.

Effective interest method

The effective interest method is a method of calculating the amortized cost of a financial asset and of allocating interest income over the relevant periods. The effective interest rate is the rate that exactly discounts estimated future cash receipts (including all fees paid or received that form an integral part of the effective interest rate, transaction costs and other premiums or discounts) through the expected life of the financial asset, or, where appropriate, a shorter period to the net carrying amount on initial recognition.

Interest income is recognized on an effective interest basis for debt instruments other than those financial assets classified as at FVTPL.

3. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Financial instruments (Continued)

Financial assets (Continued)

Financial assets at fair value through profit or loss

Financial assets at FVTPL (i.e. derivative financial instruments classified as held for trading) are measured at fair value, with changes in fair value arising from remeasurement recognized directly in profit or loss in the period in which they arise. The net gain or loss recognized in profit or loss and is included in the line item "Net loss arising from changes in fair value of derivative financial instruments."

Available-for-sale investments ("AFSs")

AFSs are non-derivatives that are either designated as AFSs, or are not classified as loans and receivables nor financial assets at FVTPL.

Dividends on AFSs investments are recognized in profit or loss when the Group's right to receive the dividends is established.

Equity investments that do not have a quoted market price in an active market and whose fair value cannot be reliably measured are measured at cost less any identified impairment losses at the end of each reporting period (see accounting policy in respect of impairment loss on financial assets below).

Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. Subsequent to initial recognition, loans and receivables (including trade and bills receivables, other receivables, amounts due from related parties, restricted bank deposits, cash and cash equivalents and other deposits over three months) are measured at amortized cost using the effective interest method, less any identified impairment at the end of each reporting period (see accounting policy in respect of impairment loss on financial assets below).

Interest income is recognized by applying the effective interest rate except for short-term receivables where the recognition of interest would be immaterial.

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

3. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Financial instruments (Continued)

Financial assets (Continued)

Impairment of financial assets

Financial assets, other than those at FVTPL, are assessed for indicators of impairment at the end of each reporting period. Financial assets are considered to be impaired when there is objective evidence that, as a result of one or more events that occurred after the initial recognition of the financial asset, the estimated future cash flows of the financial assets have been affected.

For AFS equity investments, a significant or prolonged decline in the fair value of the security below its cost is considered to be objective evidence of impairment.

For other financial asset, objective evidence of impairment could include:

- Significant financial difficulty of the issuer or counterparty; or
- Breach of contract, such as default or delinquency in interest or principal payments; or
- It becoming probable that the borrower will enter bankruptcy or financial re-organization.

For certain categories of financial assets, such as trade receivables, assets are assessed for impairment on a collective basis even if they were assessed not to be impaired individually. Objective evidence of impairment for a portfolio of receivables could include the Group's past experience of collecting payments, an increase in the number of delayed payments in the portfolio past the average credit period, as well as observable changes in national or local economic conditions that correlate with default on receivables.

For financial assets carried at amortized cost, the amount of the impairment loss recognized is the difference between the asset's carrying amount and the present value of estimated future cash flows, discounted at the financial asset's original effective interest rate.

For financial assets carried at cost, the amount of the impairment loss is measured as the difference between the asset's carrying amount and the present value of the estimated future cash flows discounted at the current market rate of return for a similar financial asset. Such impairment loss will not be reversed in subsequent periods.

3. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Financial instruments (Continued)

Financial assets (Continued)

Impairment of financial assets (Continued)

The carrying amount of the financial asset is reduced by the impairment loss directly for all financial assets with the exception of trade receivables, where the carrying amount is reduced through the use of an allowance account. When a trade receivable is considered uncollectible, it is written off against the allowance account. Changes in the carrying amount of the allowance account are recognized in profit or loss. Subsequent recoveries of amounts previously written off are credited to profit or loss.

When an AFS financial asset is considered to be impaired, cumulative gains or losses previously recognized in other comprehensive income are reclassified to profit or loss in the period.

For financial assets measured at amortized cost, if, in a subsequent period, the amount of impairment loss decreases and the decrease can be related objectively to an event occurring after the impairment losses was recognized, the previously recognized impairment loss is reversed through profit or loss to the extent that the carrying amount of the asset at the date the impairment is reversed does not exceed what the amortized cost would have been had the impairment not been recognized.

In respect of AFS equity investments, impairment losses previously recognized in profit or loss are not reversed through profit or loss. Any increase in fair value subsequent to an impairment loss is recognized in other comprehensive income and accumulated under the heading of investment revaluation reserve.

Financial liabilities and equity instruments

Debt and equity instruments issued by a group entity are classified as either financial liabilities or as equity in accordance with the substance of the contractual arrangements and the definitions of a financial liability and an equity instrument.

Equity instruments

An equity instrument is any contract that evidences a residual interest in the assets of the group entities after deducting all of its liabilities. Equity instruments issued by the group entities are recognized at the proceeds received, net of direct issue costs.

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

3. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Financial instruments (Continued)

Financial liabilities and equity instruments (Continued)

Financial liabilities

Financial liabilities are classified as either financial liabilities at FVTPL or other financial liabilities.

Financial liabilities at FVTPL (i.e. derivative financial instruments held or trading) are stated at fair value, with any gains or losses arising on remeasurement recognized in profit or loss. The net gain or loss recognized in profit or loss and is included in the line item "Net gain(loss) arising from changes in fair value of derivative financial instruments."

Other financial liabilities (including trade and other payables, amounts due to related parties, loan from/ payables to ultimate holding company, loans from an associate, fellow subsidiaries, non-controlling interests, bank borrowings and notes payable) are subsequently measured at amortized cost using the effective interest method.

The effective interest method is a method of calculating the amortized cost of a financial liability and of allocating interest expense over the relevant periods. The effective interest rate is the rate that exactly discounts estimated future cash payments (including all fees and points paid or received that form an integral part of the effective interest rate, transaction costs and other premiums or discounts) through the expected life of the financial liability, or, where appropriate, a shorter period to the net carrying amount on initial recognition.

Interest expense is recognized on an effective interest basis other than those financial liabilities classified as at FVTPL, of which the interest expense, if any, is included in net gains or losses.

Derecognition

The Group derecognizes a financial asset only when the contractual rights to the cash flows from the asset expire, or when it transfers the financial asset and substantially all the risks and rewards of ownership of the asset to another entity.

On derecognition of a financial asset, the difference between the asset's carrying amount and the sum of the consideration received and receivable is recognized in profit or loss.

The Group derecognizes financial liabilities when, and only when, the Group's obligations are discharged, cancelled or they expire. The difference between the carrying amount of the financial liability derecognized and the consideration paid and payable is recognized in profit or loss.

4. CRITICAL ACCOUNTING JUDGEMENT AND KEY SOURCES OF ESTIMATION UNCERTAINTIES

In the application of the Group's accounting policies, which are described in note 3, the directors of the Company are required to make judgements, estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimate is revised if the revision affects only that period or in the period of the revision and future periods if the revision affects both current and future periods.

Critical judgement in applying accounting policies

The following is the critical judgement, apart from those involving estimations (see below), that the management has made in the process of applying the Group's accounting policies and that has the most significant effect on the amounts recognized in the consolidated financial statements.

Facilitation and related costs

Facilitation and related costs represent salaries and other directly attributable expenditure incurred by the Group for training the nuclear engineers who would be involved in the future operation and management of nuclear power units. Pursuant to the employment contracts, these engineers are obligated to compensate the Group for the training and related costs incurred during the training period for early termination of employment contracts. As such, the management of the Group is of the opinion that such compensation creates a financial barrier to these engineers and effectively prevents them from leaving the Group as evidenced by low historical staff turnover rate. Taking into account the expected positive future cash flows from nuclear power operation, the management of the Group considers that the expenditure met the definition of an intangible asset as the Group controls these engineers in its nuclear power operation from which future economic benefits are expected to flow to the Group. The amount is amortized on a straight-line basis over the remaining terms of the employment contracts of the engineers ranging from five to eight years after the completion of training.

Key sources of estimation uncertainty

The following are the key assumptions concerning the future, and other key sources of estimation uncertainty at the end of the reporting period, that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next twelve months from the end of reporting period.

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

4. CRITICAL ACCOUNTING JUDGEMENT AND KEY SOURCES OF ESTIMATION UNCERTAINTIES (Continued)

Control over 福建寧德核電有限公司 Fujian Ningde Nuclear Power Co., Ltd. (“Ningde Nuclear”)

Ningde Nuclear is a subsidiary of the Group with effect from January 1, 2017 although the Group has only 46% ownership interest in Ningde Nuclear, details of which are set out in note 47.

The directors of the Company have assessed whether or not the Group has control over Ningde Nuclear based on whether the Group has the ability to direct the relevant activities of the Ningde Nuclear unilaterally. In making their judgement, the directors considered the Group’s voting power in Ningde Nuclear. The Group and the other shareholder, namely 大唐國際發電股份有限公司 Datang International Power Generation Co., Ltd. (“Datang Power”), which holds a 54% ownership interest in Ningde Nuclear, entered into an agreement in which Datang Power has agreed to vote in same direction with the Group during the shareholders’ meetings and board of directors’ meetings of Ningde Nuclear with effect from January 1, 2017.

After assessment, the directors of the Company concluded that the Group has the ability to direct the relevant activities of the Ningde Nuclear and therefore the Group has control over Ningde Nuclear.

Construction contracts

The Group recognizes contract revenue and profit on a construction contract according to the management’s estimation of the total outcome of the project as well as the percentage of completion of construction works. The management estimates the contract costs and foreseeable losses of construction based on the budgets prepared for the contracts. Because of the nature of the activities undertaken in construction businesses, the management reviews and revises the estimates of contract costs in the budget prepared for each contract as the contract progresses. Where the contract revenue is less than expected or actual contract costs are more than expected, additional losses may need to be recognized.

As at December 31, 2017, the carrying amounts of amounts due from customers for contract work and amounts due to customers for contract work are RMB6,819,200,000 and RMB499,175,000 (2016: RMB5,300,838,000 and RMB855,926,000), respectively.

Property, plant and equipment

The nuclear facilities are depreciated using the units of production method and other nuclear-related property, plant equipment is depreciated using the straight-line method over their respective useful lives. The Group’s management reviews annually the residual value, useful lives and related depreciation based on the historical experience of the actual residual value and useful lives of property, plant and equipment of similar nature and function. For nuclear facilities, depreciation is also affected by the budgeted production volume throughout the useful lives of the facilities. Estimated useful lives and production volume could change significantly as a result of technical innovations and changes in safety regulatory development. Management will increase the depreciation charge where residual value or useful lives are less than previously estimated, or it will write-off or write-down technically obsolete or non-strategic assets that have been abandoned or sold.

4. CRITICAL ACCOUNTING JUDGEMENT AND KEY SOURCES OF ESTIMATION UNCERTAINTIES (Continued)

Key sources of estimation uncertainty (Continued)

Property, plant and equipment (Continued)

Property, plant and equipment are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. The recoverable amounts have been determined based on the value-in-use calculations or fair value less costs of disposal. Management judgment is required in the area of asset impairment particularly in assessing: (i) whether an event has occurred that may indicate that the related asset value may not be recoverable; (ii) whether the carrying value of an asset can be supported by the recoverable amount, being the higher of fair value less costs of disposal or net present value of future cash flows which are estimated based upon the continued use of the asset in the business; and (iii) the appropriate key assumptions to be applied in preparing cash flow projections including whether these cash flow projections are discounted using an appropriate rate. Changing the assumptions selected by management in assessing impairment, including the discount rates and other assumptions in the cash flow projections, could materially affect the net present value in the impairment test. If there is a significant adverse change in the assumptions used in the future cash flow projections, an impairment loss may be recognized in profit or loss.

As at December 31, 2017, the carrying amounts of property, plant and equipment are approximately RMB277,283,783,000 (2016: RMB216,509,163,000).

Intangible assets

Development costs on nuclear power related technologies as well as facilitation and related cost on the Group's engineers are capitalized as intangible assets in accordance with the accounting policy set out in note 3, depending on an assessment by the management with respect to the technical feasibility of the technology, where applicable, and whether the expenditure incurred is able to generate probable future economic benefits to the Group.

The intangible assets are amortized on a straight-line basis over its useful lives and remaining terms of the employment contracts of the engineers in case of facilitation and related cost. The management assessed the useful lives of its intangible assets annually. In addition, the management estimates the recoverable amounts of the cash generating units to which the intangible assets are allocated whenever there is an indication of impairment and annually where the intangible assets are not put into use. Technical innovations and changes in safety regulatory development will affect the estimated useful lives and the estimation of the recoverable amounts.

As at December 31, 2017, the carrying amounts of intangible assets are approximately RMB3,695,173,000 (2016: RMB3,065,535,000).

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

4. CRITICAL ACCOUNTING JUDGEMENT AND KEY SOURCES OF ESTIMATION UNCERTAINTIES (Continued)

Key sources of estimation uncertainty (Continued)

Deferred tax assets

Deferred tax assets relating to certain temporary differences and tax losses are recognized when management of the Group considers to be probable that future taxable profit will be available against which the temporary differences or tax losses can be utilized. The outcome of their actual utilization may be different. The realizability of the deferred tax assets mainly depends on whether sufficient future profits will be available in the future. The management of the Group determines the deferred tax assets based on the enacted or substantially enacted tax rates and the best knowledge of profit projections of the Group for coming years during which the deferred tax assets are expected to be utilized. The management of the Group reviews the assumptions and profit projections on a regular basis. In cases where the actual future profits generated are more or less than expected, an additional recognition or a reversal of deferred tax assets may arise, which would be recognized in the profit or loss for the period in which such a recognition or reversal takes place.

As at December 31, 2017, the carrying amounts of deferred tax assets are approximately RMB1,551,267,000 (2016: RMB1,687,249,000).

Impairment of inventories

The Group makes impairment loss of inventories based on an assessment of the net realizable value of inventories. Impairment losses are applied to inventories where events or changes in circumstances indicate that the net realizable value is lower than the cost of inventories. The identification of obsolete inventories requires the use of judgement and estimates on the conditions and usefulness of the inventories. In cases where the net realizable value of inventories assessed are less than expected, a recognition of impairment loss of inventories may arise, which would be recognized in profit or loss in the period in which such recognition takes place.

As at December 31, 2017, the carrying amounts of inventories is RMB19,738,837,000 (net of accumulated impairment of RMB553,673,000) (2016: RMB13,137,983,000 (net of accumulated impairment of RMB521,919,000)).

4. CRITICAL ACCOUNTING JUDGEMENT AND KEY SOURCES OF ESTIMATION UNCERTAINTIES (Continued)

Key sources of estimation uncertainty (Continued)

Provision for nuclear power plant decommissioning

Decommissioning provision for nuclear power plant, which pertain to future obligations for handling the decommissioning of the Group's nuclear power plants as well as for handling nuclear waste, is recorded as a non-current liability. Estimated future decommissioning expenditures require assumptions be made about the regulatory environment, health and safety considerations, the desired end state and technology to be employed. The discounting of the expected future cash flows is at a rate that reflects current market assessments of the time value of money and the risks specific to the provision. The provision is reviewed annually to reflect actual expenditures incurred and changes in management's estimate of the future costs and timing.

As at December 31, 2017, the carrying amounts of provision for nuclear power plant decommissioning are approximately RMB2,952,098,000 (2016: RMB2,278,307,000).

Provision for low and medium level radioactive waste management

The Group also makes a provision for low and medium level radioactive waste management that covers cost for management and safe disposal of radioactive waste on the basis of management's best estimates of the quantities and radioactivity of waste water, waste gas and other solid pollutants discharged and the expenditure required in undergoing different treatments and processes. If the requirements set out in the industry policies or new regulations in the future are higher than currently expect, the Group is required to make further provisions in accordance with these new standards, which will affect the results of operations. Detailed assumptions are shown in note 37.

As at December 31, 2017, the carrying amounts of provision for low and medium level radioactive waste management are approximately RMB292,768,000 (2016: RMB189,126,000).

Fair value measurement of derivative financial instruments

As described in note 28, the directors of the Company use their judgment in selecting an appropriate valuation technique for financial instruments not quoted in an active market. Valuation techniques commonly used by market practitioners are applied. For derivative financial instruments, assumptions are made based on quoted market rates, to the extent possible, and adjusted for specific features of the instruments.

As at December 31, 2017, the fair values of derivative financial assets are approximately RMB4,592,000 (2016: RMB13,937,000) and derivative financial liabilities are approximately RMB31,560,000 (2016: RMB220,780,000).

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

5. REVENUE AND SEGMENT INFORMATION

Revenue mainly represents revenue arising from sales of electricity derived from nuclear power plants.

An analysis of the Group's revenue for the year is as follows:

	2017 RMB'000	2016 RMB'000
Sales of electricity	41,543,214	28,114,633
Revenue from construction contracts and design projects	2,680,489	2,820,090
Revenue from technical and training service	722,427	1,029,728
Sales of equipment and other goods	670,324	925,856
	45,616,454	32,890,307

Ningde Nuclear received the Circular on Adjustment of On-grid Tariffs of Nuclear Power by Fujian Provincial Price Bureau 《福建省物價局關於調整核電上網電價的通知》 (the "Circular") in 2017. Pursuant to the Circular, adjustment shall be made to the on-grid tariffs of nuclear power in Fujian Province in accordance with the Circular on Relevant Issues Concerning Improving the On-grid Tariff Mechanism for Nuclear Power 《關於完善核電上網電價機制問題的通知》 promulgated by the National Development and Reform Commission. The on-grid tariffs for Ningde Unit 1 and Unit 2 shall remain unchanged at RMB0.43/kWh (tax inclusive), while the on-grid tariffs for Ningde Unit 3 and Unit 4 shall be ratified downwards to RMB0.4055/kWh (tax inclusive) and RMB0.3717/kWh (tax inclusive), respectively. The above tariff ratification shall take effect retrospectively since the respective dates on which the generating units commenced commercial operation. Therefore it resulted in a decrease in revenue of RMB586,119,000 for sales of electricity in 2017.

Information reported to the board of directors of the Company, being the chief operating decision makers ("CODM") of the Group, for the purposes of resources allocation and assessment of performance focuses on the types of goods or services delivered or provided.

The Group has two reportable segments, namely (i) nuclear power operation and sales of electricity and related technical services segment and (ii) engineering construction and technical services segment. The CODM regularly review sales reports, electricity supply reports and construction progress reports. The Group's operating businesses are structured and managed separately according to the nature of their operations and the products and services they provide. Each of the group companies is identified as an operating segment in accordance with IFRS 8, which represents a strategic business unit that offers products and services which are subject to risks and returns that are different from another operating segment. When the group companies are operating in similar business model with similar target group of customers, the group companies are aggregated as a reporting segment. Summarized details of the reportable segments are as follows:

5. REVENUE AND SEGMENT INFORMATION (Continued)

- (i) the nuclear power operation and sales of electricity and related technical services segment which mainly generates revenue from sales of electricity through nuclear power operation; and
- (ii) the engineering construction and technical services segment which generates revenue from construction of nuclear power plants and design projects, technical and training service, and sales of equipment and other goods.

The accounting policies of the operating segments are the same as the Group's accounting policies described in note 3. The segment revenue is the same as the Group's revenue. Segment profit is the Group's profit before taxation without taking into account of unrealized gain arising from changes in fair value of derivative financial instruments, share of results of the Group's associates and joint ventures. This is the measure reported to the CODM for resources allocation and performance assessment.

Segment revenue and results

The following table presents revenue and results by reportable segments.

	Year ended December 31, 2017				
	Nuclear power operation and sales of electricity and related technical services segment RMB'000	Engineering construction and technical services segment RMB'000	Subtotal RMB'000	Elimination RMB'000	Total RMB'000
Revenue					
External sales	42,421,872	3,194,582	45,616,454	—	45,616,454
Inter-segment sales	614,714	10,784,382	11,399,096	(11,399,096)	—
Segment revenue	43,036,586	13,978,964	57,015,550	(11,399,096)	45,616,454
Segment profit before taxation reported to the board of directors	13,168,559	739,963	13,908,522	(866,988)	13,041,534
Add: Unrealized gain arising from changes in fair value of derivative financial instruments	197,260	—	197,260	—	197,260
Add: Share of results of associates	333,986	202,071	536,057	63,581	599,638
Add: Share of results of joint ventures	2,998	—	2,998	—	2,998
Group's profit before taxation	13,702,803	942,034	14,644,837	(803,407)	13,841,430

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

5. REVENUE AND SEGMENT INFORMATION (Continued)

Segment revenue and results (Continued)

	Year ended December 31, 2016				
	Nuclear power operation and sales of electricity and related technical services segment RMB'000	Engineering construction and technical services segment RMB'000	Subtotal RMB'000	Elimination RMB'000	Total RMB'000
Revenue					
External sales	29,387,755	3,502,552	32,890,307	—	32,890,307
Inter-segment sales	567,358	10,928,341	11,495,699	(11,495,699)	—
Segment revenue	29,955,113	14,430,893	44,386,006	(11,495,699)	32,890,307
Segment profit before taxation reported to the board of directors	8,072,725	789,131	8,861,856	(695,323)	8,166,533
Add: Unrealized gain arising from changes in fair value of derivative financial instruments	120,409	—	120,409	—	120,409
Add: Share of results of associates	287,616	199,768	487,384	52,038	539,422
Add: Share of results of joint ventures	718,502	—	718,502	32,623	751,125
Group's profit before taxation	9,199,252	988,899	10,188,151	(610,662)	9,577,489

Inter-segment sales are charged at prevailing government-prescribed price, government-guided price or market prices.

Geographical information

As the Group's operations, non-current assets and revenues from external customers are all located in the PRC, no geographical segment information is presented.

5. REVENUE AND SEGMENT INFORMATION (Continued)

Other segment information

	Year ended December 31, 2017				
	Nuclear power operation and sales of electricity and related technical services segment RMB'000	Engineering construction and technical services segment RMB'000	Subtotal RMB'000	Elimination RMB'000	Total RMB'000
Amounts included in the measure of segment results:					
(Reversal) allowance for trade and other receivables	(1,124)	23,392	22,268	—	22,268
Allowance for prepayments and other receivables	374	—	374	—	374
Depreciation and amortization	7,176,212	210,496	7,386,708	(152,359)	7,234,349
Impairment losses of inventories	275,316	—	275,316	—	275,316
Loss on disposal of property, plant and equipment	4,981	1,257	6,238	—	6,238
Research and development expenses	598,307	175,579	773,886	—	773,886
Interest income from bank deposits	26,690	307	26,997	—	26,997
Interest income from an associate	173,390	6,283	179,673	—	179,673
Finance costs	6,293,124	5,745	6,298,869	(11,718)	6,287,151
Taxation	1,431,870	95,891	1,527,761	(200,852)	1,326,909
Additions to non-current assets (note)	18,486,457	473,065	18,959,522	1,426,406	20,385,928
Amounts regularly provided to the CODM but not included in segments assets/liabilities:					
Derivative financial instruments-assets	4,592	—	4,592	—	4,592
Derivative financial instruments-liabilities	31,560	—	31,560	—	31,560
Interests in associates	8,098,703	1,551,756	9,650,459	(1,304,015)	8,346,444
Interests in joint ventures	17,187	—	17,187	—	17,187

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

5. REVENUE AND SEGMENT INFORMATION (Continued)

Other segment information (Continued)

	Year ended December 31, 2016				
	Nuclear power operation and sales of electricity and related technical services segment RMB'000	Engineering construction and technical services segment RMB'000	Subtotal RMB'000	Elimination RMB'000	Total RMB'000
Amounts included in the measure of segment results:					
Allowance for trade and other receivables	4,323	—	4,323	—	4,323
Depreciation and amortization	4,616,059	246,964	4,863,023	(136,269)	4,726,754
Impairment losses of inventories	151,955	—	151,955	—	151,955
Loss on disposal of property, plant and equipment	14,167	727	14,894	—	14,894
Research and development expenses	451,462	300,340	751,802	—	751,802
Interest income from bank deposits	52,628	779	53,407	—	53,407
Interest income from an associate	129,118	43,620	172,738	—	172,738
Finance costs	4,079,923	3,423	4,083,346	—	4,083,346
Taxation	718,149	78,561	796,710	(143,928)	652,782
Additions to non-current assets (note)	22,817,348	345,962	23,163,310	(1,029,050)	22,134,260
Amounts regularly provided to the CODM but not included in segments assets/liabilities:					
Derivative financial instruments-assets	13,937	—	13,937	—	13,937
Derivative financial instruments-liabilities	220,780	—	220,780	—	220,780
Interests in associates	7,531,481	1,614,936	9,146,417	(1,308,450)	7,837,967
Interests in joint ventures	5,257,316	—	5,257,316	(1,058,184)	4,199,132

Note: Non-current assets include property, plant and equipment, intangible assets, investment properties, prepaid lease payments, deposits for property, plant and equipment and prepayments and value-added tax recoverable.

5. REVENUE AND SEGMENT INFORMATION (Continued)

Information about major customers

Revenue from customers of the corresponding year contributing over 10% of the total sales of the Group are as follows:

	2017 RMB'000	2016 RMB'000
Entities under control by the PRC Government(excluding entities under control by CGNPC, a joint venture and an associate disclosed below) ¹	36,210,378	22,948,559
Entities under control by CGNPC ²	953,017	859,929
A joint venture ²	—	1,297,774
Associates ²	2,254,611	1,768,354
An associate of CGNPC ² 香港核電投資有限公司	—	203,843
Hong Kong Nuclear Investment Co., Ltd. (“HKNIC”) ¹	5,332,837	5,166,074

¹ Revenue from sales of electricity to power grids (note 45(c)) and HKNIC, a non-controlling interests with significant influence over the relevant subsidiary (note 45(a)) from nuclear power operation and sales of electricity and related technical services segment

² Revenue from construction contracts and design projects, technical and training service, and sales of equipment and other goods to related parties (note 45(a)) from both segments

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

5. REVENUE AND SEGMENT INFORMATION (Continued)

Segment assets and liabilities

For the year ended December 31, 2017 and December 31, 2016, the Group has two reportable segments, namely (i) nuclear power operation and sales of electricity and related technical services segment and (ii) engineering construction and technical services segment.

The following is an analysis of the Group's assets and liabilities by reporting segments:

	December 31, 2017 RMB'000	December 31, 2016 RMB'000
Segment assets		
Nuclear power operation and sales of electricity and related technical services segment	339,339,490	265,001,229
Engineering construction and technical services segment	24,198,771	22,580,130
Total segment assets	363,538,261	287,581,359
Unallocated assets	8,368,223	12,051,036
Elimination	(12,379,795)	(11,998,601)
Total assets	359,526,689	287,633,794
Segment liabilities		
Nuclear power operation and sales of electricity and related technical services segment	243,842,832	194,384,795
Engineering construction and technical services segment	22,642,963	20,975,863
Total segment liabilities	266,485,795	215,360,658
Unallocated liabilities	31,560	220,780
Elimination	(9,523,803)	(9,846,317)
Total liabilities	256,993,552	205,735,121

5. REVENUE AND SEGMENT INFORMATION (Continued)

Segment assets and liabilities (Continued)

For the purpose of monitoring segment performance and allocating resources between segments:

- all assets are allocated to operating segments other than interests in associates, interests in joint ventures and derivative financial instruments–assets; and
- all liabilities are allocated to operating segments other than derivative financial instruments–liabilities.

6. OTHER INCOME

	2017 RMB'000	2016 RMB'000
Value-added tax refunds (note a)	1,386,129	1,315,548
Interest income from bank deposits	26,997	53,407
Interest income from an associate	179,673	172,738
Rental income	21,511	21,849
Dividend from available-for-sale investments	23,862	14,433
Government grants		
– related to expenses items (note b)	55,298	15,313
– related to assets (note 36)	63,237	64,402
	1,756,707	1,657,690

Notes:

- (a) 嶺澳核電有限公司 Ling Ao Nuclear Power Co, Ltd. (“Ling’ao Nuclear”), 嶺東核電有限公司 Ling Dong Nuclear Power Co, Ltd. (“Lingdong Nuclear”), 陽江核電有限公司 Yangjiang Nuclear Power Co., Ltd. (“Yangjiang Nuclear”), and Ningde Nuclear, subsidiaries of the Company, are entitled to the value-added tax refund for the first 15 years for their revenue from the sales of electricity since the second month of commencement of reactor projects’ commercial operation. There were no conditions or limitations attached to these value-added tax refunds. Government grants are not recognized until there is reasonable assurance that the Group will comply with the conditions attaching to them (if applicable) and that the grants will be received.
- (b) The amounts represent incentives from various PRC government authorities in connection with the enterprise expansion support, technology advancement support and product development support for the years ended December 31, 2017 and 2016, which had no conditions imposed by the respective PRC government authorities.

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

7. OTHER GAINS AND LOSSES

	2017 RMB'000	2016 RMB'000
Net foreign exchange losses	(434,810)	(528,532)
Gain on disposal of investment properties	—	64,846
Gain on remeasurement of previously held interest in a joint venture becoming a subsidiary (note 47)	1,785,082	—
Gain (loss) on disposal of a subsidiary (note 48)	71,520	(38,339)
Gain from disposal of an associate (note 18)	199	—
Allowance for trade and other receivables (note 25)	(22,268)	(4,323)
Allowance for prepayments and other receivables	(374)	—
Loss on disposals of property, plant and equipment	(6,238)	(14,894)
Others	(39,432)	709
	1,353,679	(520,533)

8. FINANCE COSTS

	2017 RMB'000	2016 RMB'000
Interest on bank borrowings	9,245,141	6,643,764
Interest on notes payable	321,377	677,584
Interest on loans from ultimate holding company	168,244	65,407
Interest on long-term payables to ultimate holding company	—	81,233
Interest on loans from fellow subsidiaries	11	156,636
Interest on loans from an associate	276,284	300,126
Interests relating to provision for nuclear power plant decommissioning	182,361	131,701
Total interest expenses	10,193,418	8,056,451
Less: Capitalized in construction in progress	(3,906,267)	(3,973,105)
Total finance costs	6,287,151	4,083,346

Borrowing costs capitalized during the year arose on the specific borrowings obtained for the construction work and the general borrowing pool by applying a capitalization rate ranging from 4.13% to 4.79% (2016: 4.40% to 4.99%).

9. PROFIT BEFORE TAXATION

Profit before taxation has been arrived at after charging (crediting):

	2017 RMB'000	2016 RMB'000
Directors' emoluments (note 13)	2,355	2,441
Supervisors' emoluments (note 13)	3,154	4,990
Other staff costs:		
Salaries and other benefits	7,607,492	6,931,369
Retirement benefit scheme contributions	496,650	442,797
Total staff costs	8,109,651	7,381,597
Less: Capitalized in property, plant and equipment	(2,302,538)	(2,627,073)
Less: Capitalized in intangible assets	(176,264)	(196,393)
	5,630,849	4,558,131
Depreciation and amortization of:		
Property, plant and equipment	7,126,374	4,719,520
Less: Capitalized in construction in progress	(260,682)	(296,727)
	6,865,692	4,422,793
Prepaid lease payments	98,168	85,545
Less: Capitalized in construction in progress	(19,622)	(19,622)
	78,546	65,923
Intangible assets	268,272	210,057
Investment properties	21,839	27,981
	7,234,349	4,726,754

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

9. PROFIT BEFORE TAXATION (Continued)

	2017 RMB'000	2016 RMB'000
Auditor's remuneration	7,439	6,830
Allowance on inventories (note i)	275,316	151,955
Cost of generating electricity (including cost of nuclear fuel consumed of RMB6,765,809,000 (2016: RMB4,212,184,000)) recognized as expenses	20,565,282	13,063,444
Unrealized gain arising from fair value change in financial assets and liabilities at FVTPL	(197,260)	(120,409)
Realized loss arising from financial assets and liabilities at FVTPL	167,324	134,253
Net (gain) loss arising from changes in fair value of derivative financial instruments	(29,936)	13,844
Gross rental income from investment properties	(21,511)	(21,849)
Less: Direct operating expenses including depreciation of investment properties and expenses incurred for generating rental income	31,215	36,916
	9,704	15,067
Research and development expenses (note ii)	773,886	751,802
Provision for spent fuel management (included in cost of sales)	1,187,125	1,061,545
Provision for low and medium level radioactive waste management (included in cost of sales)	96,415	14,648
Operating lease rentals in respect of rented premises	350,689	329,661

Notes:

- (i) During the year ended December 31, 2017, due to obsolescence of the spare parts, the Group has recognized allowance on inventories of RMB275,316,000 (2016: RMB151,955,000).
- (ii) Research and development expenses are reported under "other expenses" line item on the face of consolidated statement of profit or loss and other comprehensive income, and included staff costs as well as expenses incurred to improve the safety and efficiency of nuclear power operation.

10. TAXATION

	2017 RMB'000	2016 RMB'000
PRC Enterprise Income Tax ("EIT")		
– Current year	1,336,672	1,214,548
– Under (over)-provision in prior years	10,778	(8,907)
	1,347,450	1,205,641
Deferred taxation (note 21)	(20,541)	(552,859)
Taxation	1,326,909	652,782

The Company and its subsidiaries are subject to the PRC EIT at 25%, except for the following subsidiaries which enjoyed certain tax exemption and relief.

深圳中廣核工程設計有限公司 China Nuclear Power Design Co., Ltd. (Shenzhen), 中廣核(北京)仿真技術有限公司 China Nuclear Power (Beijing) Simulation Technology Corporation Ltd. ("CNPSTC"), 中廣核檢測技術有限公司 CGN Inspection Technology Co., Ltd., 蘇州熱工研究院有限公司 Suzhou Nuclear Power Research Institute, 廣東核電合營有限公司 Guangdong Nuclear Power Joint Venture Co, Ltd. ("GNPJVC"), 中廣核研究院有限公司 China Nuclear Power Technology Research Institute ("CNPRI"), Ling'ao Nuclear and CGN Engineering were approved to enjoy the preferential tax rate of 15% in accordance with the relevant EIT laws and regulations for the year ended December 31, 2017 and 2016. Lingdong Nuclear was approved to enjoy the preferential tax rate of 15% for the year ended December 31, 2017.

Lingdong Nuclear, Yangjiang Nuclear, Fangchenggang Nuclear, 台山核電合營有限公司 Taishan Nuclear Power Joint Venture Co., Ltd. ("Taishan Nuclear"), 中廣核陸豐核電有限公司 CGN Lufeng Nuclear Power Co., Ltd. ("Lufeng Nuclear") and Ningde Nuclear, being enterprises engaged in public infrastructure project, were entitled to tax holiday of three years for EIT followed by 50% exemption for the next three years commencing from their first revenue generating year.

Pursuant to the Supplementary Notice of Tax Benefit Scheme in relation to Public Infrastructure Project 《關於公共基礎設施項目享受企業所得稅優惠政策問題的補充通知》 issued in July 2014, the tax authority clarified that for these public infrastructures which were approved as a whole and constructed at batches, the first revenue generating year of public infrastructure project should be based on each batch (such as individual reactor project) instead of the legal entity as a whole.

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

10. TAXATION (Continued)

The first revenue generating year of two reactor projects of Lingdong Nuclear commenced in 2010 and 2011. The applicable tax rate for Lingdong Nuclear's first reactor project was 15% for the year ended December 31, 2017 and 25% for the year ended December 31, 2016 while the applicable tax rate for the second reactor project was 15% for the year ended December 31, 2017 and 12.5% the year ended December 31, 2016.

The first revenue generating year of four reactor projects of Yangjiang Nuclear commenced in 2014, 2015, 2016 and 2017 respectively. The applicable tax rate for Yangjiang Nuclear's first reactor project was 12.5% for the year ended December 31, 2017 while it was tax exempted for the year ended December 31, 2016. The other three reactor projects were tax exempted for the years ended December 31, 2017 and 2016.

The first revenue generating year of two reactor projects of Fangchenggang Nuclear commenced in 2016. Therefore, Fangchenggang Nuclear is tax exempted for the years ended December 31, 2017 and 2016.

The first revenue generating year of four reactor projects of Ningde Nuclear commenced in 2013, 2014, 2015 and 2016 respectively. The applicable tax rate for Ningde Nuclear's first reactor project and second reactor project were 12.5% for the year ended December 31, 2017. The other two reactor projects were tax exempted for the year ended December 31, 2017.

Taishan Nuclear and Lufeng Nuclear have not yet commenced generating electricity nor earned profit during the years ended December 31, 2017 and 2016.

Details of the deferred taxation are set out in note 21.

10. TAXATION (Continued)

The taxation for the year can be reconciled to the profit before taxation per consolidated statement of profit or loss and other comprehensive income as follows:

	2017 RMB'000	2016 RMB'000
Profit before taxation	13,841,430	9,577,489
Tax at the applicable tax rate of 25%	3,460,358	2,394,372
Tax effect of expenses not deductible for tax purpose	34,539	29,737
Tax effect of value-added tax refunds not taxable for tax purpose (note)	(346,532)	(325,292)
Tax effect of share of results of associates	(149,910)	(134,856)
Tax effect of share of results of joint ventures	(750)	(187,781)
Tax effect of tax losses not recognized	20,441	127,688
Utilization of tax losses previously not recognized	(417,992)	(49,836)
Additional tax benefit on research and development expenses	(53,269)	(75,375)
Effect of tax exemption and relief granted to subsidiaries	(1,724,137)	(988,985)
Under (over)-provision in prior years	10,778	(8,907)
Others	493,383	(127,983)
	1,326,909	652,782

Note:

Pursuant to the Circular on Relevant Issues Concerning Taxation in Nuclear Power Industry (《關於核電行業稅收政策有關問題的通知》), the value-added tax refund for the sales of electricity by Lingdong Nuclear, Ling'ao Nuclear, Yangjiang Nuclear, Fangchenggang Nuclear and Ningde Nuclear are exempted from EIT.

As disclosed in note 39, the Company dispose 17% equity interest held by the Group in Yangjiang Nuclear. No income tax expense has been charged by the relevant tax authority in respect of the gain arising from the disposal of partial interest in a subsidiary without losing control as it has been set off by the utilization of tax losses previously not recognized.

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

11. DIVIDEND

The subsidiaries of the Company and the Company had declared dividends to their shareholders as follows:

	2017 RMB'000	2016 RMB'000
Analyzed for financial reporting purpose:		
– Dividends declared to the Company's shareholders	2,317,845	1,908,814
– Dividends declared to CGNPC by CGN Engineering	—	1,384,171
– Dividends declared to the subsidiaries' non-controlling interests	1,933,722	1,952,423
	4,251,567	5,245,408

Subsequent to the end of the reporting period, a final dividend of RMB0.068 per share in respect of the year ended December 31, 2017 amounting to approximately RMB3,090,515,000 in total has been proposed by the directors of the Company and is subject to approval by the shareholders in the forthcoming annual general meeting.

During the reporting period, a final dividend of RMB0.051 per share in respect of the year ended December 31, 2016 was declared to the owners of the Company amounting to approximately RMB2,317,845,000 in total, which was approved by the Company's shareholders at the 2016 annual general meeting convened on May 24, 2017. The Company has paid the dividend by July 31, 2017.

12. EARNINGS PER SHARE

The basic earnings per share is calculated based on the profit attributable to the owners of the Company and the number of ordinary shares for the year.

	2017	2016
Profit attributable to the owners of the Company (RMB'000)	9,500,319	7,286,934
Number of ordinary shares (in million)	45,449	45,449
Basic earnings per share (RMB)	0.209	0.160

No diluted earnings per share for both 2017 and 2016 were presented as the Group had no potential ordinary share in issue during the years ended December 31, 2017 and 2016.

13. DIRECTORS', CHIEF EXECUTIVE'S, SUPERVISORS' AND EMPLOYEES' EMOLUMENTS

Directors', chief executive's and supervisors' remuneration of the Company for the year is as follows:

	2017 RMB'000	2016 RMB'000
Directors'/Supervisors' fees	1,900	1,879
Salaries and other allowances	1,571	1,926
Discretionary bonus	1,767	3,322
Retirement benefit scheme contributions	271	304
Total	5,509	7,431

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

13. DIRECTORS', CHIEF EXECUTIVE'S, SUPERVISORS' AND EMPLOYEES' EMOLUMENTS (Continued)

	Fees RMB'000	Salaries and other allowances RMB'000	Discretionary bonus RMB'000	Retirement benefit scheme contributions RMB'000	Total RMB'000
<i>For the year ended December 31, 2017</i>					
Executive director and chief executive:					
Gao Ligang	—	224	445	86	755
Non-executive directors:					
Zhang Shanming	—	—	—	—	—
Tan Jiansheng (note)	—	—	—	—	—
Shi Bing	—	—	—	—	—
Zhong Huiling (note)	—	—	—	—	—
Zhang Yong (note)	—	—	—	—	—
Xiao Xue (note)	—	—	—	—	—
Zhuo Yuyun (note)	—	—	—	—	—
Independent non-executive directors:					
Na Xizhi	500	—	—	—	500
Hu Yiguang	450	—	—	—	450
Francis Siu Wai Keung	650	—	—	—	650
	1,600	—	—	—	1,600
	1,600	224	445	86	2,355
Supervisors:					
Pan Yinsheng (note)	—	263	314	34	611
Chen Sui	—	—	—	—	—
Cai Zihua	—	556	504	77	1,137
Wang Hongxin	—	528	504	74	1,106
	—	1,347	1,322	185	2,854
Independent supervisors:					
Yang Lanhe	150	—	—	—	150
Chen Rongzhen	150	—	—	—	150
	300	—	—	—	300
	300	1,347	1,322	185	3,154
Total	1,900	1,571	1,767	271	5,509

13. DIRECTORS', CHIEF EXECUTIVE'S, SUPERVISORS' AND EMPLOYEES' EMOLUMENTS (Continued)

	Fees RMB'000	Salaries and other allowances RMB'000	Discretionary bonus RMB'000	Retirement benefit scheme contributions RMB'000	Total RMB'000
<i>For the year ended December 31, 2016</i>					
Executive director and chief executive:					
Gao Ligang	—	217	564	81	862
Non-executive directors:					
Zhang Shanming	—	—	—	—	—
Zhang Weiqing (note)	—	—	—	—	—
Shi Bing	—	—	—	—	—
Xiao Xue	—	—	—	—	—
Zhuo Yuyun	—	—	—	—	—
Independent non-executive directors:					
Na Xizhi	479	—	—	—	479
Hu Yiguang	450	—	—	—	450
Francis Siu Wai Keung	650	—	—	—	650
	1,579	—	—	—	1,579
	1,579	217	564	81	2,441
Supervisors:					
Pan Yinsheng (note)	—	636	979	80	1,695
Cai Zihua	—	556	978	73	1,607
Wang Hongxin	—	517	801	70	1,388
	—	1,709	2,758	223	4,690
Independent supervisors:					
Yang Lanhe	150	—	—	—	150
Chen Rongzhen	150	—	—	—	150
	300	—	—	—	300
	300	1,709	2,758	223	4,990
Total	1,879	1,926	3,322	304	7,431

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

13. DIRECTORS', CHIEF EXECUTIVE'S, SUPERVISORS' AND EMPLOYEES' EMOLUMENTS (Continued)

Note:

On July 22, 2016, the Company announces that Mr. Zhang Weiqing has reached the age of retirement and resigned as the non-executive director of the Company, with the effect from July 22, 2016.

On April 6, 2017, the Company announced that Mr. Xiao Xue and Mr. Zhuo Yuyun would retire as a non-executive directors of the Company and Mr. Pan Yinsheng would retire as a supervisor of the Company, with the effect from April 6, 2017.

On May 24, 2017, the Company announced that Mr. Gao Ligang was appointed as an executive director of the Company. Mr. Zhang Shanming, Mr. Tan Jiansheng, Mr. Shi Bing, Ms. Zhong Huiling and Mr. Zhang Yong were appointed as non-executive directors of the Company. Mr. Na Xizhi, Mr. Hu Yiguang and Mr. Francis Siu Wai Keung were appointed as independent non-executive directors. Mr. Chen Sui, Mr. Yang Lanhe and Mr. Chen Rongzhen were appointed as independent supervisors. All of these appointments are effective from May 24, 2017.

On May 24, 2017, Mr. Pan Yinsheng resigned as a supervisor, and his emoluments disclosed above is for the periods from January 1, 2017 to May 24, 2017. During the year ended December 31, 2017, Mr. Pan Yinsheng was also the employee of 大亞灣核電運營管理有限責任公司 Daya Bay Nuclear Management Co., Ltd. ("DNMC"), a subsidiary of the Group. His salaries amounting to RMB611,000 (2016: RMB1,695,000) disclosed above were received from DNMC as an employee.

During the year ended December 31, 2017 and 2016, Mr. Zhang Shanming, Mr. Zhang Weiqing and Mr. Shi Bing who were also directors or employees of CGNPC received emoluments from CGNPC. Mr. Xiao Xue and Mr. Zhuo Yuyun acted for 廣東恒健投資控股有限公司 Guangdong Hengjian Investment Co., Ltd. ("Hengjian Investment") and 中國核工業集團公司 China National Nuclear Corporation ("CNNC"), which are shareholders of the Company, whose salaries were borne by Hengjian Investment and CNNC respectively. During the year ended December 31, 2017, Mr. Tan Jiansheng who was also a director of CGNPC received emoluments from CGNPC. Ms. Zhong Huiling acted for Hengjian Investment and Mr. Zhang Yong acted for CNNC, whose salaries were borne by Hengjian Investment and CNNC respectively. However, there is no reasonable basis to allocate any amount to the Group.

The executive director's emolument shown above was mainly for his services in connection with the management of the affairs of the Company and the Group. The non-executive directors' emoluments shown above were mainly for their services as directors of the Company or its subsidiaries. The independent non-executive directors' emoluments shown above were mainly for their services as directors of the Company.

The discretionary bonuses are determined with reference to the Group's and individual performance.

13. DIRECTORS', CHIEF EXECUTIVE'S, SUPERVISORS' AND EMPLOYEES' EMOLUMENTS (Continued)

Five Highest Paid Individuals

The five highest paid employees for the year were not directors, supervisors nor chief executive of the Group.

Details of the remuneration of the five highest paid individuals for the year are as follows:

	2017 RMB'000	2016 RMB'000
Salaries and other allowances (note)	3,247	2,689
Discretionary bonus	3,820	13,721
Retirement benefit scheme contributions	395	336
	7,462	16,746

Note: Salaries and other allowances included mainly basic salaries and travel allowance.

Their emoluments are within the following bands:

	2017	2016
Not exceeding HK\$1,000,000	—	—
HK\$1,000,001 to HK\$1,500,000	5	—
HK\$1,500,001 to HK\$2,000,000	—	—
HK\$2,000,001 to HK\$2,500,000	—	—
HK\$2,500,001 to HK\$3,000,000	—	—
HK\$3,000,001 to HK\$3,500,000	—	1
HK\$3,500,001 to HK\$4,000,000	—	1
HK\$4,000,001 to HK\$4,500,000	—	3

In 2017 and 2016, no emoluments were paid by the Group to any of the directors, supervisors, chief executive, or the five highest paid individuals as an inducement to join or upon joining the Group or as compensation for loss of office. None of the directors, supervisors and chief executive has waived any emoluments in 2017 and 2016.

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

14. PROPERTY, PLANT AND EQUIPMENT/DEPOSITS FOR PROPERTY, PLANT AND EQUIPMENT

	Buildings	Nuclear facilities	Plant and machinery	Motor vehicles	Office and electronic equipment	Construction in progress	Total
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
COST							
At January 1, 2016	23,769,975	87,182,911	777,580	108,681	3,214,212	129,732,369	244,785,728
Additions	160,910	965,920	45,771	16,724	485,184	20,182,898	21,857,407
Transfer from investment properties	394,017	—	—	—	—	—	394,017
Transfer	7,801,482	30,949,245	43,185	1,326	139,245	(38,934,483)	—
Transfer to investment properties	(49,781)	—	—	—	—	—	(49,781)
Disposals	(231,800)	(114,740)	(12,345)	(2,313)	(53,787)	—	(414,985)
Eliminated on disposal of a subsidiary	(100,337)	—	—	(1,981)	(98,509)	(756)	(201,583)
Reclassified as held for sale	(13,627)	—	(104,850)	—	(848)	—	(119,325)
Exchange differences	314,924	1,485,985	—	374	18,131	19,566	1,838,980
At December 31, 2016	32,045,763	120,469,321	749,341	122,811	3,703,628	110,999,594	268,090,458
Additions	185,134	813,231	27,155	15,490	239,289	17,544,963	18,825,262
Acquired on acquisition of subsidiaries	8,269,588	40,520,135	—	10,584	73,452	354,135	49,227,894
Transfer from investment properties	70,545	—	—	—	—	—	70,545
Transfer	1,553,992	9,867,166	123,709	1,362	150,315	(11,696,544)	—
Transfer from intangible assets	—	—	17,585	—	17,427	—	35,012
Adjustments	2,481,197	(2,477,236)	—	976	204	—	5,141
Disposals	(3,439)	(69,279)	(1,030)	(2,165)	(91,461)	—	(167,374)
Exchange differences	(286,303)	(1,356,494)	(75)	(338)	(16,733)	(18,201)	(1,678,144)
At December 31, 2017	44,316,477	167,766,844	916,685	148,720	4,076,121	117,183,947	334,408,794

14. PROPERTY, PLANT AND EQUIPMENT/DEPOSITS FOR PROPERTY, PLANT AND EQUIPMENT (Continued)

	Buildings	Nuclear facilities	Plant and machinery	Motor vehicles	Office and electronic equipment	Construction in progress	Total
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
DEPRECIATION AND IMPAIRMENT							
At January 1, 2016	7,847,150	35,144,751	314,050	68,538	2,234,010	634	45,609,133
Provided for the year	987,256	3,216,507	83,916	13,952	417,889	—	4,719,520
Transfer from investment properties	51,353	—	—	—	—	—	51,353
Transfer to investment properties	(8,276)	—	—	—	—	—	(8,276)
Eliminated on disposals	(697)	(103,384)	(425)	(2,177)	(49,565)	—	(156,248)
Eliminated on disposal of a subsidiary	(31,614)	—	—	(1,036)	(74,037)	(634)	(107,321)
Reclassified as held for sale	(12,226)	—	(97,714)	—	(835)	—	(110,775)
Exchange differences	278,004	1,289,381	—	324	16,200	—	1,583,909
At December 31, 2016	9,110,950	39,547,255	299,827	79,601	2,543,662	—	51,581,295
Provided for the year	1,280,895	5,342,312	96,748	17,211	389,208	—	7,126,374
Transfer from investment properties	12,078	—	—	—	—	—	12,078
Eliminated on disposals	(755)	(54,879)	(877)	(2,057)	(81,494)	—	(140,062)
Adjustments	197,039	(194,720)	—	77	25	—	2,421
Exchange differences	(256,108)	(1,181,572)	—	(312)	(19,103)	—	(1,457,095)
At December 31, 2017	10,344,099	43,458,396	395,698	94,520	2,832,298	—	57,125,011
CARRYING VALUES							
At December 31, 2017	33,972,378	124,308,448	520,987	54,200	1,243,823	117,183,947	277,283,783
At December 31, 2016	22,934,813	80,922,066	449,514	43,210	1,159,966	110,999,594	216,509,163

All the buildings are situated on land in the PRC.

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

14. PROPERTY, PLANT AND EQUIPMENT/DEPOSITS FOR PROPERTY, PLANT AND EQUIPMENT (Continued)

Property, plant and equipment, other than nuclear facilities and construction in progress, are depreciated using the straight-line method after taking into account of their estimated residual values at the following years:

Buildings	shorter of the remaining lease term of land and useful lives of 20 - 50 years
Plant and machinery	5 - 40 years
Motor vehicles	5 years
Office and electronic equipment	5 years

Nuclear facilities comprise nuclear power plants and equipment, and are depreciated using the unit of production method over the estimated useful life of 5 - 40 years.

As at December 31, 2017, the Group pledged nuclear facilities with carrying values of approximately RMB15,822,726,000 (2016: RMB17,059,177,000) to secure loan facilities granted to the Group. Details of pledge of assets are set out in note 44.

As at December 31, 2017, buildings with carrying amount of approximately RMB6,492,286,000 (2016: RMB6,941,557,000), are without property certificates. The Group is in the process of obtaining the property certificates.

The deposits for property, plant and equipment represent the prepayments for construction of nuclear facilities and plant and machinery.

15. INTANGIBLE ASSETS

	AP1000 and related technology RMB'000	Fuel reloading technology RMB'000	Other nuclear power technology RMB'000	Facilitation and related costs RMB'000	Others RMB'000	Total RMB'000
COST						
At January 1, 2016	388,574	272,656	897,910	1,773,728	287,574	3,620,442
Additions	180,782	27,189	220,406	107,547	—	535,924
Elimination on disposal of a subsidiary	—	—	(136,654)	—	(188,243)	(324,897)
Reclassified as held for sale	—	—	—	—	(3,800)	(3,800)
At December 31, 2016	569,356	299,845	981,662	1,881,275	95,531	3,827,669
Additions	185,097	23,619	229,917	167,885	97,367	703,885
Acquired on acquisition of subsidiaries	—	133,950	—	100,773	—	234,723
Transfer to property, plant and equipment	(26,640)	—	(8,372)	—	—	(35,012)
Write-off	(5,686)	—	—	—	—	(5,686)
At December 31, 2017	722,127	457,414	1,203,207	2,149,933	192,898	4,725,579
AMORTIZATION						
At January 1, 2016	—	72,650	—	479,094	77,423	629,167
Provided for the year	12,657	37,829	—	128,543	31,028	210,057
Elimination on disposal of a subsidiary	—	—	—	—	(73,906)	(73,906)
Reclassified as held for sale	—	—	—	—	(3,184)	(3,184)
At December 31, 2016	12,657	110,479	—	607,637	31,361	762,134
Provided for the year	13,192	55,348	—	176,071	23,661	268,272
At December 31, 2017	25,849	165,827	—	783,708	55,022	1,030,406
CARRYING VALUES						
At December 31, 2017	696,278	291,587	1,203,207	1,366,225	137,876	3,695,173
At December 31, 2016	556,699	189,366	981,662	1,273,638	64,170	3,065,535

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

15. INTANGIBLE ASSETS (Continued)

The management of the Group has reviewed the carrying amount of AP1000 and other intangible assets at the end of the reporting period and concluded that no impairment loss needs to be recognized. Expenditure on AP1000 and related technology are amortized over estimated useful life of 10 years.

Expenditure on developing fuel reloading technology by the Group are amortized over estimated useful life from five to ten years.

Facilitation and related costs are amortized over the remaining terms of the employment contracts with the nuclear engineers from five to eight years after the completion of training.

Others mainly represent patents are amortized over estimated useful life of five to fifteen years.

16. INVESTMENT PROPERTIES

	2017 RMB'000	2016 RMB'000
COST		
At the beginning of the year	424,920	848,195
Addition	—	931
Transfer from property, plant and equipment	—	49,781
Transfer to property, plant and equipment	(70,545)	(394,017)
Disposal	—	(82,563)
Exchange differences	(580)	2,593
At the end of the year	353,795	424,920
ACCUMULATED DEPRECIATION		
At the beginning of the year	104,588	189,089
Provided for the year	21,839	27,981
Transfer from property, plant and equipment	—	8,276
Transfer to property, plant and equipment	(12,078)	(51,353)
Disposal	—	(71,328)
Exchange differences	(224)	1,922
At the end of the year	114,125	104,587
CARRYING VALUES	239,670	320,333

16. INVESTMENT PROPERTIES (Continued)

At December 31, 2017, the fair values of the Group's investment properties were approximately RMB532,773,000 (2016: RMB568,951,000) based on a valuation carried out by China Enterprise Appraisals Co. Ltd., independent qualified professional valuer not connected with the Group, who has appropriate qualifications and recent experiences in the valuation of similar properties in the relevant locations. The address of China Enterprise Appraisals Co., Ltd is Room 901, Fanli Plaza, Chaoyangmenwai Street, Beijing, the PRC. The valuation was determined by the market comparable method and adjusted to reflect the conditions of the properties which the directors of the Company are of the view that it is the best estimate of the fair value of these investment properties.

In estimating the fair value of the properties, the highest and best use of the properties is their current use.

The above investment properties are depreciated on a straight-line basis taking into account their estimated residual value, over the estimated useful lives of 20 to 40 years, which is the shorter of the lease term of land and estimated useful lives of building.

All the Group's investment properties are located in the PRC. The carrying amounts of investment properties included the Group's interest in land held under operating lease as the leasehold payments cannot be allocated reliably between the land and building elements, as such the entire lease is classified as finance lease and accounted for as investment properties.

Details of the Group's investment properties and information about the fair value hierarchy as at are as follows:

	December 31, 2017 RMB'000	December 31, 2016 RMB'000	Fair value hierarchy
Commercial building units located in the PRC			
Shenzhen Futian District	349,387	455,728	Level 3
Beijing Haidian District	18,239	18,824	Level 3
Shenzhen Longgang District	34,584	88,693	Level 3
Beijing Changping District	127,855	4,126	Level 3
Chengdu Wuhou District	2,708	1,580	Level 3

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

16. INVESTMENT PROPERTIES (Continued)

The following table gives information about how the fair values of these investment properties are determined.

Investment properties held by the Group in the consolidated statement of financial position	Valuation technique(s) and key input(s)	Significant unobservable input(s)	Relationship of unobservable input(s) to fair value
Properties in Shenzhen Futian District	Direct comparison method based on market observable transactions of similar properties and adjust to reflect the conditions of the subject property. The key inputs are: 1) Property floor level 2) Property age 3) Market price of similar properties	Price per square meter, using market direct comparable and taking into account of age adjustment and floor level adjustment of the property	1) The higher the floor level, the higher the fair value 2) The older the development, the lower the fair value 3) The higher the market price, the higher the fair value
Properties in Beijing Haidian District	Direct comparison method based on market observable transactions of similar properties and adjust to reflect the conditions of the subject property. The key inputs are: 1) Property floor level 2) Property age 3) Market price of similar properties	Price per square meter, using market direct comparable and taking into account of age adjustment and floor level adjustment of the property	1) The higher the floor level, the higher the fair value 2) The older the development, the lower the fair value 3) The higher the market price, the higher the fair value
Properties in Shenzhen Longgang District	Direct comparison method based on market observable transactions of similar properties and adjust to reflect the conditions of the subject property. The key inputs are: 1) Property floor level 2) Property age 3) Market price of similar properties	Price per square meter, using market direct comparable and taking into account of age adjustment and floor level adjustment of the property	1) The higher the floor level, the higher the fair value 2) The older the development, the lower the fair value 3) The higher the market price, the higher the fair value

16. INVESTMENT PROPERTIES (Continued)

Investment properties held by the Group in the consolidated statement of financial position	Valuation technique(s) and key input(s)	Significant unobservable input(s)	Relationship of unobservable input(s) to fair value
Properties in Beijing Changping District	Direct comparison method based on market observable transactions of similar properties and adjust to reflect the conditions of the subject property. The key inputs are: 1) Property floor level 2) Property age 3) Market price of similar properties	Price per square meter, using market direct comparable and taking into account of age adjustment and floor level adjustment of the property	1) The higher the floor level, the higher the fair value 2) The older the development, the lower the fair value 3) The higher the market price, the higher the fair value
Properties in Chengdu Wuhou District	Direct comparison method based on market observable transactions of similar properties and adjust to reflect the conditions of the subject property. The key inputs are: 1) Property floor level 2) Property age 3) Market price of similar properties	Price per square meter, using market direct comparable and taking into account of age adjustment and floor level adjustment of the property	1) The higher the floor level, the higher the fair value 2) The older the development, the lower the fair value 3) The higher the market price, the higher the fair value

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

17. GOODWILL AND IMPAIRMENT TESTING ON GOODWILL

	December 31, 2017 RMB'000	December 31, 2016 RMB'000
COST AND CARRYING VALUES		
At 1 January	—	—
Arising on acquisition of a subsidiary (note 47)	419,243	—
At 31 December	419,243	—

For the purpose of impairment testing, goodwill set out above have been allocated to one cash generating unit (CGU), comprising one subsidiary in nuclear power operation and sales of electricity and related technical services segment. The carrying amounts of goodwill as at December 31, 2017 allocated to the unit is as follows:

	December 31, 2017 RMB'000	December 31, 2016 RMB'000
Ningde Nuclear	419,243	—

During the year ended December 31, 2017, management of the Group determines that there is no impairment of any of its CGU containing goodwill.

The basis of the recoverable amounts of the above CGU and their major underlying assumptions are summarized below:

The recoverable amount of this unit has been determined based on a value in use calculation. That calculation uses cash flow projections based on financial budgets approved by management covering a five-year period, the discount rate of 10%. The cash flows beyond the five-year period are extrapolated using a growth rate of 1%. The growth rate is based on the relevant management development plans and industry growth forecasts and does not exceed the average long-term growth rate for the relevant industry. Other key assumptions for the value in use calculations relate to the estimation of cash inflows which include budgeted sales and gross margin, such estimation is based on the past performance and management's expectations for the market development. Management believes that any reasonably possible change in any of these assumptions would not cause the aggregate carrying amount of this CGU to exceed the aggregate recoverable amount of this CGU.

18. INTERESTS IN ASSOCIATES

	December 31, 2017 RMB'000	December 31, 2016 RMB'000
Unlisted cost of interests in associates	8,829,654	8,334,917
Share of post-acquisition profits and other comprehensive income, net of dividends received	(483,210)	(496,950)
	8,346,444	7,837,967

During the year ended December 31, 2017, the group has made a total capital contributions to associates amounting to RMB498,737,000 (2016: RMB582,156,000).

The following table lists the material associates of the Group:

Name of associates	Principal activities	Place of establishment and operation	Proportion of paid-in capital and voting power held by the Group	
			2017	2016
遼寧紅沿河核電有限公司 Liaoning Hongyanhe Nuclear Power Co., Ltd. ("Hongyanhe Nuclear") ^Δ	Nuclear power generation	PRC	45.00%	45.00%
中廣核一期產業投資基金有限公司 CGN Fund Phase I Co., Ltd. (CGN Fund Phase I)*	Investment holding	PRC	31.43%	31.43%
中廣核財務有限責任公司 CGN Finance Co., Ltd. ("CGN Finance")	Financial services	PRC	30.00%	30.00%

^Δ The equity interest in Hongyanhe Nuclear is pledged to secure banking facilities of Hongyanhe Nuclear as at December 31, 2016. During the year ended December 31, 2017, the pledge over the equity interest in Hongyanhe Nuclear is released as detailed in note 44.

* directly held by the Company

The summarized financial information in respect of the each of the Group's material associates which are accounted for using the equity accounting method and prepared using IFRSs are set out below.

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

18. INTERESTS IN ASSOCIATES (Continued)

Hongyanhe Nuclear

	December 31, 2017 RMB'000	December 31, 2016 RMB'000
Current assets	6,331,838	7,071,842
Non-current assets	61,574,496	58,678,977
Current liabilities	9,090,453	5,645,065
Non-current liabilities	45,281,649	47,665,075
	2017 RMB'000	2016 RMB'000
Revenue	6,878,201	5,975,442
Profit and total comprehensive income for the year	446,147	204,844
Dividend received from Hongyanhe Nuclear	88,454	—

Reconciliation of the above summarized financial information to the carrying amount of the Group's interest in Hongyanhe Nuclear recognized in the consolidated financial statements:

	December 31, 2017 RMB'000	December 31, 2016 RMB'000
Net assets of Hongyanhe Nuclear	13,534,232	12,440,679
Proportion of the Group's interest in Hongyanhe Nuclear	45.00%	45.00%
Unrealized profit	6,090,404 (1,404,908)	5,598,306 (1,409,341)
Carrying amount of the Group's interest in Hongyanhe Nuclear	4,685,496	4,188,965

18. INTERESTS IN ASSOCIATES (Continued)

CGN Fund Phase I

	December 31, 2017 RMB'000	December 31, 2016 RMB'000
Current assets	592,183	686,867
Non-current assets (note)	5,978,672	5,832,393
Current liabilities	337	315
Non-current liabilities	—	—

Note:

The non-current assets represent the carrying amount of 22.22% equity interest in 中廣核核電投資有限公司 CGN Investment Co., Ltd. ("CGN Investment"), 43.48% equity interest in 中廣核寧核投資有限公司 CGN Ninghe Investment Co., Ltd. ("CGN Ninghe Investment"), and 7% equity interest in Yangjiang Nuclear. CGN Investment and CGN Ninghe Investment are classified as interests in associates, and Yangjiang Nuclear is classified as available-for-sale investments.

	2017 RMB'000	2016 RMB'000
Revenue	469,182	667,711
Profit and total comprehensive income for the year	423,881	616,568
Dividend received from CGN Fund Phase I	172,857	136,625

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

18. INTERESTS IN ASSOCIATES (Continued)

CGN Fund Phase I (Continued)

Reconciliation of the above summarized financial information to the carrying amount of the Group's interest in CGN Fund Phase I recognized in the consolidated financial statements:

	December 31, 2017 RMB'000	December 31, 2016 RMB'000
Net assets of CGN Fund Phase I	6,570,518	6,518,945
Proportion of the Group's interest in CGN Fund Phase I	31.43%	31.43%
	2,065,114	2,048,904
Surplus on disposal (note)	(62,562)	(62,031)
Carrying amount of the Group's interest in CGN Fund Phase I	2,002,552	1,986,873

Note:

Surplus on disposal represents 31.43% of the surplus resulting from the disposal of 7% equity interest in Yangjiang Nuclear by the Group to CGN Fund Phase I in prior years.

CGN Finance

	December 31, 2017 RMB'000	December 31, 2016 RMB'000
Current assets	26,099,019	19,646,114
Non-current assets	11,746,868	9,169,436
Current liabilities	33,912,196	24,384,959
Non-current liabilities	25,354	163,095

18. INTERESTS IN ASSOCIATES (Continued)

CGN Finance (Continued)

	2017 RMB'000	2016 RMB'000
Revenue	1,023,253	885,026
Profit for the year	457,918	486,728
Other comprehensive expenses for the year	(379,076)	(507,053)
Total comprehensive income (expenses) for the year	78,842	(20,325)
Dividend received from CGN Finance	131,400	125,829

Reconciliation of the above summarized financial information to the carrying amount of the Group's interest in CGN Finance recognized in the consolidated financial statements:

	December 31, 2017 RMB'000	December 31, 2016 RMB'000
Net assets of CGN Finance	3,908,337	4,267,496
Proportion of the Group's interest in CGN Finance	30.00%	30.00%
Carrying amount of the Group's interest in CGN Finance	1,172,501	1,280,249

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

18. INTERESTS IN ASSOCIATES (Continued)

Aggregate information of associates that are not individually material

	2017 RMB'000	2016 RMB'000
The Group's share of profit and total comprehensive income	62,716	53,824
Dividend received from associates	31,257	16,162
	December 31, 2017 RMB'000	December 31, 2016 RMB'000
Aggregate carrying amount of the Group's interests in these associates	485,895	381,879

These individually immaterial associates are principally involved in construction work and training service in the PRC.

Disposal of an associate

In 2017 the Group disposed of all of its 40% interest in 蘇州龍源白鷺風電職業培訓中心有限公司 Suzhou Longyuan Bailu Wind Power Vocational Training Center Co., Ltd. with carrying amount RMB4,192,000 to a third party at a cash consideration of RMB4,391,000. This transaction has resulted in a gain in profit or loss of RMB199,000.

19. INTERESTS IN JOINT VENTURES

	December 31, 2017 RMB'000	December 31, 2016 RMB'000
Unlisted cost of interests in joint ventures	16,320	5,157,974
Share of post-acquisition profits, net of dividends received	867	(958,842)
	17,187	4,199,132

Particulars of the joint ventures of the Group are as following:

Name of joint ventures	Principal activities	Place of establishment and operation	Proportion of paid-in capital and voting power held by the Group	
			2017	2016
Ningde Nuclear	Nuclear power generation	PRC	N/A	46.00%
北京中法瑞克儀器有限公司 Beijing Ric Nuclear Instrument Joint Venture Co., Ltd. ("Beijing Ric Nuclear")	Nuclear power instrument manufacturing	PRC	51.00%	51.00%

On January 1, 2017, the Group obtained control over Ningde Nuclear and has accounted for such transaction using acquisition method in accordance with IFRS 3. The financial results of Ningde Nuclear have been consolidated in the Group's consolidated financial statements since the date the Group obtained control. Details are disclosed in note 47.

Pursuant to the joint venture agreement of Beijing Ric Nuclear, although the Group holds 51% interests in Beijing Ric Nuclear, the relevant activities that significantly affect the return of Beijing Ric Nuclear require unanimous consent from the Group and the other joint venturer. Since the Group does not have control over Beijing Ric Nuclear, Beijing Ric Nuclear is classified as a joint venture.

The summarized financial information in respect of the Group's joint ventures which are accounted for using the equity accounting method and prepared using IFRSs is set out below.

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

19. INTERESTS IN JOINT VENTURES (Continued)

Ningde Nuclear

	December 31, 2016 RMB'000
Current assets	7,241,981
Non-current assets	50,751,697
Current liabilities	7,987,040
Non-current liabilities	38,456,007
The above amounts of assets and liabilities include the following:	
Cash and cash equivalents	108,552
Current financial liabilities (excluding trade and other payables and provisions)	5,792,941
Non-current financial liabilities (excluding provisions)	37,991,539
	2016 RMB'000
Revenue	8,037,013
Profit and total comprehensive income for the year	1,547,840
Dividends received/receivable from Ningde Nuclear	640,806
The above profit for the year includes the following:	
Depreciation and amortization	1,493,234
Interest income	2,297
Finance costs	1,654,993
Taxation	48,663

Reconciliation of the above summarized financial information to the carrying amount of the Group's interest in Ningde Nuclear recognized in the consolidated financial statements:

19. INTERESTS IN JOINT VENTURES (Continued)

Ningde Nuclear (Continued)

	December 31, 2016 RMB'000
Net assets of Ningde Nuclear	11,550,631
Proportion of the Group's interest in Ningde Nuclear	46.00%
	5,313,290
Unrealized profit	(1,133,989)
Carrying amount of the Group's interest in Ningde Nuclear	4,179,301

Beijing Ric Nuclear - immaterial joint venture

	2017 RMB'000	2016 RMB'000
The Group's share of profit and total comprehensive income	2,998	4,449
Dividend received from Beijing Ric Nuclear	5,642	1,699
	December 31, 2017 RMB'000	December 31, 2016 RMB'000
Aggregate carrying amount of the Group's interest in Beijing Ric Nuclear	17,187	19,831

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

20. AVAILABLE-FOR-SALE INVESTMENTS

	December 31, 2017 RMB'000	December 31, 2016 RMB'000
Unlisted investment, at cost		
– 15% equity interests in 中核能源科技有限公司	110,000	110,000
– 13.7% equity interests in 中核工業華興建設有限公司	85,310	85,310
	195,310	195,310

Note:

The unlisted investments represents equity securities of state-owned entities established in the PRC. It is measured at cost less impairment at the end of the reporting period because the range of reasonable fair value estimates is so significant that the directors are of the opinion that its fair values cannot be measured reliably. The Group does not intend to dispose it in the near future.

According to the Articles of 中核工業華興建設有限公司, CGN Engineering, a subsidiary of the Company is required to inject capital in 中核工業華興建設有限公司 of RMB76,730,000 before August 24, 2012 which has been paid, and RMB60,270,000 before March 31, 2017 which has not been paid at December 31, 2017. At December 31, 2017, the equity interests in 中核工業華興建設有限公司 held by the Group remains 13.7%.

21. DEFERRED TAXATION

The following are the major deferred tax assets (liabilities) recognized and movements thereon during the year:

Deferred tax assets (liabilities)	Unrealized profit RMB'000	Receipt in advance RMB'000	Net exchange difference of gains arising from borrowings RMB'000	Fair value adjustments arising from acquisition of a subsidiary RMB'000	Derivative financial instruments RMB'000	Accelerated tax depreciation on property, plant and equipment RMB'000	Deferred income RMB'000	Allowance on inventories and impairment of property, plant and equipment RMB'000	Others RMB'000	Total RMB'000
At January 1, 2016	1,429,887	1,251	(597,345)	—	10,706	(1,293,118)	26,969	1,965	8,572	(411,113)
Credit (charge) to profit or loss	171,275	6,977	79,789	—	(922)	283,896	(2,021)	11,849	2,016	552,859
Eliminated on disposal of a subsidiary	—	—	—	—	—	—	—	(3,836)	—	(3,836)
Exchange differences	—	—	—	—	—	(65,720)	—	—	—	(65,720)
Reclassified as held for sale	—	—	—	—	—	—	—	—	(58)	(58)
At December 31, 2016	1,601,162	8,228	(517,556)	—	9,784	(1,074,942)	24,948	9,978	10,530	72,132
(Charge) credit to profit or loss	(122,520)	(5,726)	130,805	11,964	(9,564)	14,271	670	4,265	(3,624)	20,541
Exchange differences	—	—	—	—	—	58,467	—	—	—	58,467
Acquisition of a subsidiary (note 47)	—	—	—	(165,608)	—	—	—	—	—	(165,608)
At December 31, 2017	1,478,642	2,502	(386,751)	(153,644)	220	(1,002,204)	25,618	14,243	6,906	(14,468)

The following is the analysis of the deferred tax balances for financial reporting purposes:

	December 31, 2017 RMB'000	December 31, 2016 RMB'000
Deferred tax assets	1,551,267	1,687,249
Deferred tax liabilities	(1,565,735)	(1,615,117)
	(14,468)	72,132

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

21. DEFERRED TAXATION (Continued)

Details of tax losses not recognized at the end of the reporting period are set out below:

	December 31, 2017 RMB'000	December 31, 2016 RMB'000
Tax losses	490,166	2,083,681

No deferred tax asset has been recognized in respect of the tax loss due to the unpredictability of future profit stream for relevant subsidiaries. Included in unrecognized tax losses are losses that will expire as the following:

	December 31, 2017 RMB'000	December 31, 2016 RMB'000
2017	—	7,858
2018	3,542	4,212
2019	33,487	723,815
2020	182,070	837,043
2021	188,914	510,753
2022	82,153	—
	490,166	2,083,681

22. PREPAID LEASE PAYMENTS

	December 31, 2017 RMB'000	December 31, 2016 RMB'000
Land use rights in the PRC	3,583,847	3,045,260
Analyzed for reporting purposes as:		
Current assets	98,168	85,649
Non-current assets	3,485,679	2,959,611
	3,583,847	3,045,260

The prepaid lease payments represented land use rights in the PRC.

At December 31, 2017, the Group pledged leasehold land with carrying values of RMB134,874,000 (2016: RMB116,929,000) to secure loan facilities. Details of pledge of assets are set out in note 44.

At December 31, 2017, the Group has obtained all the land use right certificate (2016: the Group is still in the process of obtaining the land use right certificates with carrying amount RMB60,378,000).

23. INVENTORIES

	December 31, 2017 RMB'000	December 31, 2016 RMB'000
Nuclear fuel	15,772,171	10,392,515
Materials and consumable parts	3,965,297	2,744,893
Others	1,369	575
	19,738,837	13,137,983

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

24. AMOUNTS DUE FROM (TO) CUSTOMERS FOR CONTRACT WORK

	December 31, 2017 RMB'000	December 31, 2016 RMB'000
Contract costs incurred plus recognized profits	47,493,826	68,420,856
Less: Progress billings	(41,173,801)	(63,975,944)
	6,320,025	4,444,912
Analyzed for reporting purposes as:		
Amounts due from customers for contract work	6,819,200	5,300,838
Amounts due to customers for contract work	(499,175)	(855,926)
	6,320,025	4,444,912

25. TRADE AND BILLS RECEIVABLES

	December 31, 2017 RMB'000	December 31, 2016 RMB'000
Amounts due from third parties	4,461,309	3,002,320
Less: Allowance of doubtful debts	(34,649)	(12,381)
	4,426,660	2,989,939
Amount due from ultimate holding company	4,798	10,027
Amounts due from joint ventures	—	572,617
Amounts due from associates	1,575,726	1,149,944
Amounts due from fellow subsidiaries	176,263	259,733
Amount due from an associate of CGNPC	203,843	203,843
Amount due from a non-controlling interests with significant influence over the relevant subsidiary	222,636	538,550
Bills receivables	38,522	10,840
Total trade and bills receivables	6,648,448	5,735,493

25. TRADE AND BILLS RECEIVABLES (Continued)

The following is an analysis of trade receivables by age, net of allowance for doubtful debts presented based on the invoice date at the end of each reporting period:

	December 31, 2017 RMB'000	December 31, 2016 RMB'000
1 day to 30 days	4,861,372	3,629,857
31 days to 1 year	659,410	1,479,394
1 year to 2 years	628,777	49,852
2 years to 3 years	37,969	515,369
Over 3 years	460,920	61,021
	6,648,448	5,735,493

Trade receivables due from third parties and bills receivables of the Group, as well as amount due from a non-controlling interests with significant influence over the relevant subsidiary, primarily represent receivables from grid companies. The credit terms granted to grid companies on the sales of electricity are 30 days. At December 31, 2017, except for an amount of RMB34,649,000 (2016: RMB12,381,000) aged above one year which are past due and fully impaired as the recoverability is considered as unlikely, trade receivables due from third parties amounting to RMB4,426,660,000 (2016: RMB2,989,939,000) and the amount due from a non-controlling interests with significant influence over the relevant subsidiary are neither past due nor impaired and have good credit quality assessed by the management of the Group.

For other related parties, the Group has not granted any credit period and all the balances are past due but not impaired and aged within one year.

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

25. TRADE AND BILLS RECEIVABLES (Continued)

Movements in the allowance of doubtful debts for trade receivable are set out as follows:

	2017 RMB'000	2016 RMB'000
At the beginning of the year	12,381	8,058
Impairment losses recognized on receivables	22,268	4,323
At the end of the year	34,649	12,381

The Group pledged trade receivables from grid companies resulting from the pledge of tariff collection rights with carrying amount of approximately RMB3,273,348,000 (2016: RMB1,803,953,000) to secure loan facilities granted to the Group as at the end of the reporting period. Details of pledge of assets are set out in note 44.

Trade receivables denominated in currencies other than the functional currencies of the relevant group entities are set out below:

	December 31, 2017 RMB'000	December 31, 2016 RMB'000
USD	9,679	1,386
EURO	7,607	14,870
	17,286	16,256

26. PREPAYMENTS AND OTHER RECEIVABLES

	December 31, 2017 RMB'000	December 31, 2016 RMB'000
Value-added tax recoverable	9,647,659	7,960,297
Prepayments to third parties for materials and consumable parts	4,695,851	4,535,916
Prepayments to fellow subsidiaries for nuclear and other materials	653,303	548,626
Prepayments to an associate for materials	607,791	470,688
Prepayments for rental expenses	18,176	19,482
Others	159,895	103,498
	15,782,675	13,638,507
Analyzed for financial reporting purpose:		
Non-current (note)	6,688,555	6,277,564
Current	9,094,120	7,360,943
	15,782,675	13,638,507

Note:

The amount represents value-added tax, which arose from the purchases of equipment and not expected to be utilized within one year from the end of the respective reporting period, and the non-current prepayment for rental expenses. The value-added tax is expected to be utilized in offsetting the value-added tax payable arising from the Group's revenue.

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

27. AMOUNTS DUE FROM RELATED PARTIES

	December 31, 2017 RMB'000	December 31, 2016 RMB'000
Other receivables from ultimate holding company	824,034	570,786
Other receivables from a non-controlling interests with significant influence over the relevant subsidiary	300,842	—
Other receivables from fellow subsidiaries	60,054	73,065
Other receivables from associates	285,091	193,568
Other receivables from a joint venture	—	875
Dividend receivable from a joint venture	5,642	640,806
Dividend receivables from associates	13,637	15,992
Dividend receivable from a former subsidiary (note ii)	130,200	130,200
	1,619,500	1,625,292

Notes:

- (i) In the opinion of the management, the above balances are unsecured, non-trade nature, interest-free and expected to be settled within one year from the end of the respective period.
- (ii) The amount is due from 北京廣利核系統工程有限公司 China Techenergy Co., Ltd. which was disposed by the Group in October 2016, details of which are set out in note 48.

28. DERIVATIVE FINANCIAL INSTRUMENTS

	December 31, 2017		December 31, 2016	
	Assets RMB'000	Liabilities RMB'000	Assets RMB'000	Liabilities RMB'000
Foreign currency forward contracts	354	31,466	13,816	99,044
Currency swap contracts	—	94	107	21,437
Interest rate swap contracts	4,238	—	14	100,299
	4,592	31,560	13,937	220,780
Analyzed for financial reporting purpose based on maturity dates:				
Non-current	1,857	—	1,416	5,744
Current	2,735	31,560	12,521	215,036
	4,592	31,560	13,937	220,780

28. DERIVATIVE FINANCIAL INSTRUMENTS (Continued)

The above derivatives are measured at fair values at the end of the reporting period and changes in fair value are recognized in the profit or loss. Their fair values are determined by Asset Appraisal Limited, an independent valuer, based on appropriate valuation techniques as detailed in note 41. The address of Asset Appraisal Limited is Room 901, 9/F, On Hong Commercial Building, 145 Hennessy Road, Wan Chai, Hong Kong.

Foreign currency forward contracts

The major terms of the outstanding foreign currency forward contracts at the end of the reporting period are as follows:

Notional amounts	Maturity dates	Contracted exchange rates
At December 31, 2017		
Buy GBP3,100,000	March 22, 2018	GBP:RMB 1:8.7792
Buy GBP18,482,905	March 22, 2018	GBP:USD 1:1.3500 to 1:1.5690
Buy EUR5,000,000	September 19, 2018	EUR:USD 1:1.2200
Buy USD82,016,325	From March 5, 2018 to December 4, 2018	USD:RMB 1:6.6366 to 1:6.7798
Buy HKD960,000,000	August 24, 2018	USD:RMB 1:0.8442

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

28. DERIVATIVE FINANCIAL INSTRUMENTS (Continued)

Foreign currency forward contracts (Continued)

Notional amounts	Maturity dates	Contracted exchange rates
At December 31, 2016		
Buy EUR31,000,000	From May 24, 2017 to November 22, 2017	EUR:RMB 1:7.3216 to 1:7.6273
Buy EUR65,817,000	From April 27, 2017 to September 19, 2018	EUR:USD 1:1.2200 to 1:1.2989
Buy GBP18,482,905	March 22, 2018	GBP:USD 1:1.3500 to 1:1.5690
Buy RMB406,536,000	January 13, 2017	RMB:EUR 1:0.1476
Buy USD96,362,500	From March 23, 2017 to September 19, 2018	USD:RMB 1:6.5285 to 1:6.7798

Currency swap contracts

The major terms of the outstanding currency swap contracts at the end of the reporting period are as follows:

Notional amounts	Maturity dates	Contracted swap rates
At December 31, 2017		
GBP93,862,388	March 22, 2018	GBP:USD 1:1.596 to 1:2.000 GBP against USD swap rates
At December 31, 2016		
EUR610,085,547	From November 22, 2017 to November 27, 2017	EUR:USD 1:1.129 to 1:1.450 EUR against USD swap rates
GBP93,862,388	March 22, 2018	GBP:USD 1:1.596 to 1:2.000 GBP against USD swap rates

28. DERIVATIVE FINANCIAL INSTRUMENTS (Continued)

Interest rate swap contracts

The major terms of interest rate swap contracts at the end of the reporting periods are as below:

Notional amounts	Commencement dates	Maturity dates	Interest rates
At December 31, 2017			
USD57,439,350	March 23, 2015	June 21, 2020	From 6 months London Interbank Offered Rate ("LIBOR") plus 15bps to 1.87% per annum
RMB67,900,000	November 29, 2017	December 4, 2018	From 3 months LIBOR to 1.765% per annum
At December 31, 2016			
USD16,340,286	May 29, 2012	March 31, 2017	From 6 months LIBOR plus 0.375% to 1.51% per annum
RMB1,000,000,000	March 18, 2008	December 20, 2017	From RMB 7 days repurchase agreement ("Repo") rate plus 1.45% to 5.9% per annum
RMB1,000,000,000	December 22, 2008	December 20, 2017	From RMB 7 days Repo rate plus 1.25% to 5.9% per annum
USD57,439,350	March 23, 2015	June 21, 2020	From 6 months LIBOR plus 15bps to 1.87% per annum

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

29. RESTRICTED BANK DEPOSITS/OTHER DEPOSITS OVER THREE MONTHS/CASH AND CASH EQUIVALENTS

Restricted bank deposits mainly represent fixed rate deposits placed at banks to secure the letter of credit for suppliers.

As at December 31, 2017, the Group's cash and cash equivalents comprise cash, bank deposits and deposits with CGN Finance, which carry interest at prevailing market rates ranging from 0.001% to 4.750% (2016: 0.0001% to 4.750%) per annum.

As at December 31, 2017, the bank deposits and other deposits placed at CGN Finance, of RMB2,023,000,000 (2016: RMB2,047,000,000), carry fixed rate interests ranging from 1.350% to 4.860% (2016: 0.490% to 4.750%) per annum with original maturity more than three months.

As at December 31, 2017, other deposits placed at CGN Finance amounted to approximately RMB10,693,211,000 (2016: RMB8,560,638,000), which includes cash and cash equivalents of RMB8,770,211,000 (2016: RMB6,650,638,000) and deposit with original maturity more than three months of approximately RMB1,923,000,000 (2016: RMB1,910,000,000).

30. ASSETS CLASSIFIED AS HELD FOR SALE/LIABILITIES DIRECTLY ASSOCIATED WITH ASSETS CLASSIFIED AS HELD FOR SALE

In December 2016, 蘇州熱工研究院有限公司 Suzhou Nuclear Power Research Institute Co., Ltd., a direct subsidiary of the Company, entered into a sale and purchase agreement with an independent third party, 深圳市集泰實業發展有限公司 Shenzhen Jitai Industry Development Co., Ltd., to dispose of its 90% equity interest in 南京新蘇熱電有限公司 Nanjing Xinsu Thermoelectricity Co., Ltd. ("Nanjing Xinsu"), an indirect subsidiary of the Company, at the consideration of RMB127,200,000. Nanjing Xinsu is engaged in steam supply and services. As at December 31, 2016, the consideration has been received in advance (note 31). The disposal has been completed on January 20, 2017 and details of the calculation of gain on disposal are set out in note 48.

30. ASSETS CLASSIFIED AS HELD FOR SALE/LIABILITIES DIRECTLY ASSOCIATED WITH ASSETS CLASSIFIED AS HELD FOR SALE (Continued)

The Group has presented the relevant assets and liabilities of Nanjing Xinsu as held for sale as at December 31, 2016 as follows:

	RMB'000
Property, plant and equipment	8,550
Intangible assets	616
Other assets	12,143
Deferred tax assets	58
Prepaid lease payments	4,645
Prepayments and other receivables	234
Amounts due from related parties	139
Cash and cash equivalents	29,592
Assets classified as held for sale	55,977
Trade and other payables representing liabilities directly associated with assets classified as held for sale	699

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

31. TRADE AND OTHER PAYABLES

	December 31, 2017 RMB'000	December 31, 2016 RMB'000
Amounts due to third parties	5,004,318	3,366,347
Amounts due to fellow subsidiaries	744,328	619,173
Total trade payables	5,748,646	3,985,520
Receipts in advance from ultimate holding company	17,310	1,416
Receipts in advance from a joint venture	—	118,236
Receipts in advance from associates	4,458,016	2,388,069
Receipts in advance from fellow subsidiaries	24,772	23,992
Receipts in advance from third parties	104,914	51,236
Total receipts in advance	4,605,012	2,582,949
Construction payables to third parties	10,969,640	10,061,704
Construction payables to fellow subsidiaries	365,341	244,280
Construction payables to a non-controlling interests with significant influence over the relevant subsidiary	69,802	—
Construction payables to ultimate holding company	13,639	34,532
Construction payables to associates	177,483	224,411
Construction payables to a joint venture	—	7,013
Value-added tax and other tax payables	1,724,456	1,369,020
Staff cost payables	37,010	50,438
Interest on notes payable	163,972	228,925
Consideration receipt in advance for assets held for sale (note 30)	—	127,200
Other payables and accruals to third parties	336,066	378,875
Total other payables	13,857,409	12,726,398
	24,211,067	19,294,867

As at December 31, 2017, advances received from customers for contract work amounted to approximately RMB4,610,045,000 (2016: RMB2,472,101,000).

The credit period on purchases of goods ranges from 180 days to 360 days.

Other payables mainly include payable for outstanding operating expenses. The balances are unsecured, interest-free and repayable on demand.

31. TRADE AND OTHER PAYABLES (Continued)

The following is an aged analysis of trade payables presented based on the invoice date at the end of the reporting period:

	December 31, 2017 RMB'000	December 31, 2016 RMB'000
Within 1 year	5,748,646	3,985,520

32. AMOUNTS DUE TO RELATED PARTIES

	December 31, 2017 RMB'000	December 31, 2016 RMB'000
Dividends payable to non-controlling interests	2,019,586	1,734,707
Other payable to ultimate holding company	422,061	5,996,661
Other payable to non-controlling interests with significant influence over the relevant subsidiary	496,889	224,250
Other payables to fellow subsidiaries	22,146	94,790
Other payables to associates	36,732	30,443
Other payables to a joint venture	—	829
	2,997,414	8,081,680

Saved as the amount of RMB5,536,330,000 payable to ultimate holding company for the acquisition of subsidiaries as at December 31, 2016, which are fully settled during the year ended December 31, 2017, the remaining amounts are unsecured, interest-free and repayable on demand.

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

33. LOANS FROM ULTIMATE HOLDING COMPANY/ FELLOW SUBSIDIARIES/AN ASSOCIATE/NON- CONTROLLING INTERESTS

	December 31, 2017 RMB'000	December 31, 2016 RMB'000
Secured	3,059,699	3,221,069
Unsecured	9,975,057	8,391,083
	13,034,756	11,612,152

Certain borrowings were secured by land use rights, nuclear facilities and tariff collection right of the Group. Details are shown in note 44.

	December 31, 2017 RMB'000	December 31, 2016 RMB'000
<u>Non-current liabilities</u>		
Loans from fellow subsidiaries repayable after twelve months	1,750,500	—
Loans from an associate repayable after twelve months	3,130,897	2,989,975
<u>Current liabilities</u>		
Loans from ultimate holding company	800,000	1,025,500
Loans from fellow subsidiaries	1,691,560	3,651,242
Loans from an associate	4,405,803	3,945,435
Loans from non-controlling interests	1,255,996	—
	13,034,756	11,612,152

33. LOANS FROM ULTIMATE HOLDING COMPANY/ FELLOW SUBSIDIARIES/AN ASSOCIATE/NON- CONTROLLING INTERESTS (Continued)

	December 31, 2017 RMB'000	December 31, 2016 RMB'000
Repayable within one year		
– RMB loans	7,092,327	8,278,594
– USD loans	—	342,341
– EURO loans	1,061,032	1,242
Repayable from one to two years		
– RMB loans	—	237,878
– EURO loans	—	2,105
Repayable from two to five years		
– RMB loans	2,050,500	713,634
– EURO loans	—	6,315
Repayable over five years		
– RMB loans	2,799,430	2,008,548
– EURO loans	31,467	21,495
	13,034,756	11,612,152

In 2016, the Group early repaid loans from an associate and a fellow subsidiary of RMB4,437,006,000 (2017: nil) which are originally repayable after twelve months from the end of the reporting period.

The floating rate loans and payables are arranged at interest rate based on LIBOR or benchmark interest rate of the People's Bank of China ("PBOC").

The carrying amounts of the loans and payables and the weighted average effective interest rates are as below:

	December 31, 2017		December 31, 2016	
	RMB'000	%	RMB'000	%
Fixed rate loans and payables	5,049,466	4.37	4,065,500	4.55
Floating rate loans	7,985,290	4.19	7,546,652	4.78
	13,034,756		11,612,152	

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

34. BANK BORROWINGS

	December 31, 2017 RMB'000	December 31, 2016 RMB'000
Secured	164,980,821	116,421,115
Unsecured	35,554,303	28,867,684
	200,535,124	145,288,799

Bank borrowings were secured by certain land use rights, nuclear facilities and tariff collection right of the Group. Details are shown in note 44.

Save for bank borrowings of RMB6,000,000,000 (2016: RMB4,196,000,000) which is guaranteed by the ultimate holding company, the remaining balances are unguaranteed.

The carrying amount repayable based on repayment term is as follows:

	December 31, 2017 RMB'000	December 31, 2016 RMB'000
Within one year	21,904,038	20,806,759
More than one year, but within two years	9,750,745	9,864,786
More than two years, but within five years	24,422,279	28,376,793
More than five years	144,458,062	86,240,461
	200,535,124	145,288,799
Less: Amounts due within one year shown under current liabilities	(21,904,038)	(20,806,759)
Amounts shown under non-current liabilities	178,631,086	124,482,040

34. BANK BORROWINGS (Continued)

Bank borrowings denominated in currencies other than the functional currencies of the relevant group entities are set out below:

	December 31, 2017 RMB'000	December 31, 2016 RMB'000
EURO	7,098,813	8,096,671
USD	755,488	25,433
GBP	55,751	162,112
	7,910,052	8,284,216

The carrying amount of the bank borrowings and the weighted average effective interest rates are as below:

	December 31, 2017		December 31, 2016	
	RMB'000	%	RMB'000	%
Fixed rate bank borrowings	34,564,594	4.78	35,243,156	5.09
Floating rate bank borrowings	165,970,530	4.39	110,045,643	4.47
	200,535,124		145,288,799	

The floating rate bank borrowings are arranged at the interest rate based on benchmark interest rates of the PBOC or LIBOR.

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

35. NOTES PAYABLE

	December 31, 2017 RMB'000	December 31, 2016 RMB'000
Listed and guaranteed corporate bond issued in 2002 (note a) *	—	4,000,000
Listed and guaranteed corporate bond issued in 2007 (note b) **	2,000,000	2,000,000
Listed and unguaranteed corporate bond issued in 2010 (note c) **	2,495,867	2,493,568
Unlisted and unguaranteed corporate bond issued in 2014 (note d)	—	600,000
Unlisted and unguaranteed corporate bond issued in 2014 (note d)	—	1,000,000
Unlisted and unguaranteed corporate bond issued in 2015 (note e)	500,000	500,000
Unlisted and unguaranteed corporate bond issued in 2015 (note f)	500,000	500,000
Unlisted and unguaranteed corporate bond issued in 2016 (note g)	500,000	500,000
Unlisted and unguaranteed corporate bond issued in 2016 (note g)	500,000	500,000
Unlisted and unguaranteed corporate bond issued in 2016 (note g)	700,000	700,000
Unlisted and unguaranteed corporate bond issued in 2016 (note g)	800,000	800,000
	7,995,867	13,593,568
Less: Amounts due within one year shown under current liabilities	(1,000,000)	(5,600,000)
	6,995,867	7,993,568

Notes:

* The bond is listed on the Shenzhen Stock Exchange.

** These bonds are quoted on the China Interbank Bond Market.

(a) In 2002, the Group issued guaranteed corporate bond with an aggregate principal amount of RMB4 billion (the "2002 Corporate Bond") at the issue price of 100%. The 2002 Corporate Bond, which bears fixed interest at the rate of 4.50% per annum payable annually, is unconditionally and irrevocably guaranteed by China Development Bank. The 2002 Corporate Bond shall become immediately due and payable in the event of the failure to perform or observe certain conditions set out in the trust deed which include, inter alia, the negative pledge given by China Development Bank. The 2002 Corporate Bond matured on November 11, 2017.

35. NOTES PAYABLE (Continued)

Notes: (Continued)

- (b) In 2007, the Group issued guaranteed corporate bond with an aggregate principal amount of RMB2 billion (the “2007 Corporate Bond”) at the issue price of 100%. The 2007 Corporate Bond, which bears fixed interest at the rate of 5.90% per annum payable annually, is unconditionally and irrevocably guaranteed by Agricultural Bank of China. The 2007 Corporate Bond shall become immediately due and payable in the event of the failure to perform or observe certain conditions set out in the trust deed which include, inter alia, the negative pledge given by Agricultural Bank of China. The 2007 Corporate Bond will mature on December 20, 2022 at the principal amount.
- (c) In 2010, the Group issued corporate bond with an aggregate principal amount of RMB2.5 billion (the “2010 Corporate Bond”) at the issue price of 100%. The 2010 Corporate Bond bears fixed interest at the rate of 4.60% per annum payable annually. The 2010 Corporate Bond will mature on May 12, 2020 at the principal amount.
- (d) On May 26, 2014 and September 26, 2014, Taishan Nuclear issued corporate bonds with an aggregate principal amount of RMB600 million and RMB1 billion (the “2014 Taishan Bonds”) at its principal amount respectively. The 2014 Taishan Bonds bears fixed interest at the rate of 6.60% and 5.80% per annum payable annually and matured on May 26, 2017 and September 26, 2017.
- (e) On February 13, 2015, Taishan Nuclear issued corporate bond with an aggregate principal amount of RMB500 million (the “2015 Taishan Bond”) at its principal amount. The 2015 Taishan Bond bears fixed interest at the rate of 5.40% per annum payable annually and will mature on February 13, 2018 at the principal amount.
- (f) On December 9, 2015, Yangjiang Nuclear issued corporate bond with an aggregate principal amount of RMB500 million (the “2015 Yangjiang Bond”) at its principal amount. The 2015 Yangjiang Bond bears fixed interest at the rate of 4.05% per annum payable annually and will mature on December 9, 2018 at the principal amount.
- (g) On January 20, 2016, March 1, 2016, June 17, 2016 and July 19, 2016, Yangjiang Nuclear issued corporate bonds with a principal amount of RMB500 million, RMB500 million, RMB700 million and RMB800 million (the “2016 Yangjiang” Bonds) at their principal amounts respectively. The 2016 Yangjiang Bonds bear fixed interests at the rate of 3.80%, 3.75%, 3.90% and 3.54% per annum payable annually respectively and will mature on January 20, 2019, March 1, 2019, June 17, 2019 and July 19, 2019 at their principal amounts respectively.

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

36. DEFERRED INCOME

	RMB'000
At January 1, 2016	1,031,309
Government grants received	50,143
Released to profit or loss	(64,402)
Elimination for disposal of a subsidiary	(32,177)
At December 31, 2016	984,873
Government grants received	73,650
Released to profit or loss	(63,237)
At December 31, 2017	995,286

During the year, the Group received government grants approximately RMB73,650,000 (2016: RMB50,143,000) for the development of nuclear power plant and related technology. The amounts are treated as deferred income and will be released to profit or loss over the estimated useful lives of intangible assets, property, plant and equipment and upon future expenditure to be incurred.

37. PROVISIONS

The Group has made the following provisions in the consolidated financial statements:

	December 31, 2017 RMB'000	December 31, 2016 RMB'000
<u>Current liability</u>		
Provision for spent fuel management	1,187,124	1,060,000
<u>Non-current liabilities</u>		
Provision for low and medium level radioactive waste management	292,768	189,126
Provision for nuclear power plant decommissioning	2,952,098	2,278,307
	3,244,866	2,467,433
	4,431,990	3,527,433

37. PROVISIONS (Continued)

The movements of provisions are shown as follows:

	Provision for spent fuel management RMB'000	Provision for low and medium level radioactive waste management RMB'000	Provision for nuclear power plant decommissioning RMB'000	Total RMB'000
At January 1, 2016	834,864	167,605	1,588,127	2,590,596
Additions	1,061,545	14,648	507,675	1,583,868
Interest expense	—	—	131,701	131,701
Paid	(836,409)	—	—	(836,409)
Exchange differences	—	6,873	50,804	57,677
At December 31, 2016	1,060,000	189,126	2,278,307	3,527,433
Additions	1,187,125	96,415	90,550	1,374,090
Interest expense	—	—	182,361	182,361
Addition from acquisition of subsidiaries	—	14,598	449,871	464,469
Paid	(1,060,001)	—	—	(1,060,001)
Exchange differences	—	(7,371)	(48,991)	(56,362)
At December 31, 2017	1,187,124	292,768	2,952,098	4,431,990

In compliance with the regulations on nuclear power operation, the Group recognized provisions to cover all obligations related to the nuclear facilities and operation.

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

37. PROVISIONS (Continued)

Provision for spent fuel management

Pursuant to the Interim Measures for the Administration of the Collection and Use of the Nuclear Power Plant Spent Fuel Treatment and Disposal Fund 《核電站乏燃料處理處置基金徵收使用管理暫行辦法》 (“Measures”) issued by Ministry of Finance of PRC, National Development and Reform Commission and Ministry of Industry and Information Technology of PRC, the Group is required to make contributions to a spent fuel treatment and disposal fund. For generating units that have been in operation for less than five years (inclusive) from the effective date of Measures and those to be established in the future, provisions for spent fuel disposal fund are made starting from the sixth year after they commence operations. Such fund is used by the relevant government authorities for the treatment and disposal of spent fuel, covering transportation, away-from-reactor storage and post-treatment of spent fuel. The management of the Group estimates the amount of provision for spent fuel management by taking into account the regulatory environment and government’s policies relating to the storage and disposal of spent fuel fund, as well as the charge imposed by the government authorities, which is at the rate of RMB0.026 per kilowatt/hour.

Provision for low and medium level radioactive waste management

This provision covers the expenditure for management and safe disposal of radioactive waste including emission or release of gas and liquid radioactive waste, and production of solid radioactive waste arising from the nuclear power generating activities.

In determining the amount of provision, the management of the Group estimates the quantities and radioactivity of the waste water, waste gas and other solid pollutants discharged and the expenditure required in undergoing different waste treatments and processes such as collection, purification and concentration, volume reduction and solidification, packaging, transportation, temporary storage on-site, centralized disposal. The management of the Group takes into consideration the industry policies, past experience and recommendation from technical experts in estimating the expenditure required to manage and dispose the radioactive waste.

37. PROVISIONS (Continued)

Provision for nuclear power plant decommissioning

The provision is related to the decommissioning of nuclear power plants and losses relating to fuel in the reactor when the reactor is shut down. They are estimated on the assumption that once decommissioning is completed, the sites will be returned to their original state.

The Group has a team of experts specialized in nuclear power plant decommissioning work. The provision is estimated according to the team's research, which is based on the decommissioning activities and actual cost incurred in shutting down a nuclear facility in other jurisdiction, and adjusted for factors such as labour cost in the PRC, complexity of the technology to be applied, most recent developments in regulations in the PRC environment when estimating the cash flows for the decommissioning.

The relevant costs are estimated based on the economic conditions at the end of each reporting period, then spread over a forecast disbursement schedule of payment through application of a forecast long-term inflation rate.

The key assumptions to the decommissioning model applied by the Group include the discount rate which is a pre-tax rate taking into account the risks specific to the provision and effect of inflation based on the historical inflation rates in the PRC.

In the opinion of management of the Group, the decommissioning is expected to commence from 2034 to 2057 based on the expected useful lives of nuclear power plants.

38. SHARE CAPITAL

Details of the movement of the number of shares comprising the domestic shares and H shares are shown as below:

	Number of domestic shares '000	Number of H Shares '000	Share capital RMB'000
Registered, issued and fully paid ordinary shares of RMB1.00 each			
At January 1, 2016, December 31, 2016 and 2017	34,285,125	11,163,625	45,448,750

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

39. NON-CONTROLLING INTERESTS

The table below shows details of non-wholly owned subsidiaries of the Group that have material non-controlling interests:

Name of subsidiary	Place of establishment and principal place of business	Proportion of equity interests and voting power held by non-controlling interests		Profit allocated to non-controlling interests		Accumulated non-controlling interests	
		December 31, 2017 %	December 31, 2016 %	2017 RMB'000	2016 RMB'000	December 31, 2017 RMB'000	December 31, 2016 RMB'000
GNPJVC	PRC	25.00	25.00	824,372	716,144	2,124,318	1,416,358
CGN Investment	PRC	22.22	22.22	183,649	206,572	2,438,038	2,170,001
Yangjiang Nuclear(note)	PRC	41.00	24.00	903,863	474,004	6,767,488	3,776,544
Taishan Nuclear	PRC	30.00	30.00	(112,484)	(85,680)	7,781,171	7,893,655
Taishan Investment	PRC	40.00	40.00	(64,677)	(54,386)	6,106,313	5,234,190
Fangchenggang Nuclear	PRC	39.00	39.00	18,737	38,383	2,264,097	2,247,088
CGN Ninghe Investment	PRC	43.48	43.48	393,040	309,629	2,659,344	2,474,223
Ningde Nuclear	PRC	54.00	N/A (note19)	878,970	—	6,587,326	—
Individually immaterial subsidiaries with non-controlling interests				(11,268)	33,107	(32,633)	151,913
				3,014,202	1,637,773	36,695,462	25,363,972

Note: The Company disposed of 17% equity interest held by the Group (comprising 12% equity interest directly held by the Company and 5% equity interest held by Guangdong Nuclear Investment Co., Ltd., a wholly-owned subsidiary of the Company) in Yangjiang Nuclear to CLP Nuclear Power (Yangjiang) Limited (a non-controlling interest with significant influence over the relevant subsidiary), at a consideration of approximately RMB5,300,842,000, of which RMB5,000,000,000 has been received during the year ended December 31, 2017. The disposal was completed on December 12, 2017. Thereafter, the Company directly and indirectly hold an aggregate of 59% ownership in Yangjiang Nuclear which remains a subsidiary of the Company. The Group accounted for the partial disposal of interest in the subsidiary without losing control as equity transaction, and a total amount of approximately RMB2,549,111,000 was recognized in capital reserve which represented the difference between the carrying amount of the non-controlling interests of approximately RMB2,751,731,000 and the fair value of the consideration received amounted of approximately RMB5,300,842,000.

Summarized financial information in respect of each of the Group's subsidiaries that has material non-controlling interests is set out below. The summarized financial information below represents amounts before intragroup elimination.

39. NON-CONTROLLING INTERESTS (Continued)

(a) GNPJVC

	December 31, 2017 RMB'000	December 31, 2016 RMB'000
Current assets	7,507,042	7,750,900
Non-current assets	4,525,536	4,838,727
Current liabilities	1,603,632	4,948,963
Non-current liabilities	1,931,673	1,975,232
Equity attributable to owners of the Company	6,372,955	4,249,074
Non-controlling interests of GNPJVC	2,124,318	1,416,358

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

39. NON-CONTROLLING INTERESTS (Continued)

(a) GNPJVC (Continued)

	2017 RMB'000	2016 RMB'000
Revenue	6,687,926	6,620,765
Profit for the year attributable to:		
Owners of the Company	2,473,115	2,148,432
Non-controlling interests	824,372	716,144
Total	3,297,487	2,864,576
Other comprehensive (expense) income for the year attributable to:		
Owners of the Company	(321,703)	373,780
Non-controlling interests	(107,235)	124,593
Total	(428,938)	498,373
Total comprehensive income for the year attributable to:		
Owners of the Company	2,151,412	2,522,212
Non-controlling interests	717,137	840,737
Total	2,868,549	3,362,949
Dividends paid to non-controlling interests of GNPJVC	9,176	809,580
Net cash inflow from operating activities	4,132,989	2,906,038
Net cash outflow from investing activities	(297,829)	(213,407)
Net cash outflow from financing activities	(3,154,258)	(3,048,523)
Net cash inflow (outflow)	680,902	(355,892)

39. NON-CONTROLLING INTERESTS (Continued)

(b) CGN Investment

	December 31, 2017 RMB'000	December 31, 2016 RMB'000
Current assets	564,208	604,360
Non-current assets	10,704,517	10,300,614
Current liabilities	296,458	1,138,991
Non-current liabilities	—	—
Equity attributable to owners of the Company	8,534,229	7,595,982
Non-controlling interests of CGN Investment	2,438,038	2,170,001
	2017 RMB'000	2016 RMB'000
Share of results of associates	825,840	929,402
Profit and total comprehensive income for the year attributable to:		
Owners of the Company	642,853	723,096
Non-controlling interests	183,649	206,572
Total	826,502	929,668
Dividends paid to non-controlling interests of CGN Investment	183,649	206,572
Net cash outflow from operating activities	(47)	(213)
Net cash inflow from investing activities	462,774	616,403
Net cash outflow from financing activities	(462,717)	(616,190)
Net cash inflow	10	—

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

39. NON-CONTROLLING INTERESTS (Continued)

(c) Yangjiang Nuclear

	December 31, 2017 RMB'000	December 31, 2016 RMB'000
Current assets	7,931,577	5,984,561
Non-current assets	70,573,083	67,302,876
Current liabilities	14,535,800	11,460,722
Non-current liabilities	47,462,792	46,091,117
Equity attributable to owners of the Company	9,738,580	11,959,054
Non-controlling interests of Yangjiang Nuclear	6,767,488	3,776,544
	2017 RMB'000	2016 RMB'000
Revenue	10,972,218	7,922,401
Profit and total comprehensive income for the year attributable to:		
Owners of the Company	2,724,910	1,501,011
Non-controlling interests	903,863	474,004
Total	3,628,773	1,975,015
Dividends paid to non-controlling interests of Yangjiang Nuclear	892,392	514,149
Net cash inflow from operating activities	6,286,122	6,009,221
Net cash outflow from investing activities	(6,154,526)	(7,454,224)
Net cash (outflow) inflow from financing activities	(73,502)	1,447,285
Net cash inflow	58,094	2,282

39. NON-CONTROLLING INTERESTS (Continued)

(d) Taishan Nuclear

	December 31, 2017 RMB'000	December 31, 2016 RMB'000
Current assets	2,711,997	487,933
Non-current assets	86,133,526	80,052,131
Current liabilities	9,733,051	6,184,872
Non-current liabilities	53,175,235	48,043,010
Equity attributable to owners of the Company	18,156,066	18,418,527
Non-controlling interests of Taishan Nuclear	7,781,171	7,893,655
	2017 RMB'000	2016 RMB'000
Revenue	—	—
Other income and gains (losses)	(374,946)	(285,599)
Loss and total comprehensive expenses for the year attributable to:		
Owners of the Company	(262,462)	(199,919)
Non-controlling interests	(112,484)	(85,680)
Total	(374,946)	(285,599)
Dividends paid to non-controlling interests of Taishan Nuclear	—	—
Net cash outflow from operating activities	(51,596)	(44,375)
Net cash outflow from investing activities	(5,328,281)	(4,537,098)
Net cash inflow from financing activities	5,647,574	4,577,192
Net cash inflow (outflow)	267,697	(4,281)

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

39. NON-CONTROLLING INTERESTS (Continued)

(e) Taishan Investment

	December 31, 2017 RMB'000	December 31, 2016 RMB'000
Current assets	2,018,110	499
Non-current assets	13,253,248	13,095,848
Current liabilities	743	10,872
Non-current liabilities	4,833	—
Equity attributable to owners of the Company	9,159,469	7,851,285
Non-controlling interests of Taishan Investment	6,106,313	5,234,190
	2017 RMB'000	2016 RMB'000
Share of results of associates	(156,193)	(135,660)
Loss and total comprehensive expenses for the year attributable to:		
Owners of the Company	(97,015)	(81,578)
Non-controlling interests	(64,677)	(54,386)
Total	(161,692)	(135,964)
Dividends paid to non-controlling interests of Taishan Investment	—	—
Net cash outflow from operating activities	(11,453)	(40)
Net cash outflow from investing activities	(1,995,000)	(570,000)
Net cash inflow from financing activities	2,006,500	570,000
Net cash inflow (outflow)	47	(40)

39. NON-CONTROLLING INTERESTS (Continued)

(f) Fangchenggang Nuclear

	December 31, 2017 RMB'000	December 31, 2016 RMB'000
Current assets	4,661,837	3,940,459
Non-current assets	35,571,086	33,962,044
Current liabilities	5,779,823	9,229,137
Non-current liabilities	28,647,723	22,911,603
Equity attributable to owners of the Company	3,541,280	3,514,675
Non-controlling interests of Fangchenggang Nuclear	2,264,097	2,247,088
	2017 RMB'000	2016 RMB'000
Revenue	4,034,705	2,845,977
Profit and total comprehensive income for the year attributable to:		
Owners of the Company	29,307	60,036
Non-controlling interests	18,737	38,383
Total	48,044	98,419
Dividends paid to non-controlling interests	—	—
Net cash inflow from operating activities	3,167,107	1,250,686
Net cash outflow from investing activities	(4,414,757)	(2,777,545)
Net cash inflow from financing activities	964,823	1,385,881
Net cash outflow	(282,827)	(140,978)

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

39. NON-CONTROLLING INTERESTS (Continued)

(g) CGN Ninghe Investment

	December 31, 2017 RMB'000	December 31, 2016 RMB'000
Current assets	5,969,029	641,948
Non-current assets	49,372,064	5,809,849
Current liabilities	8,926,143	761,311
Non-current liabilities	33,711,377	—
Equity attributable to owners of the Company	3,456,903	3,216,263
Non-controlling interests of Ningde Nuclear	6,587,326	—
Non-controlling interests of CGN Ninghe Investment	2,659,344	2,474,223
	2017 RMB'000	2016 RMB'000
Revenue	9,124,022	—
Share of results of joint ventures	—	712,007
Profit and total comprehensive income for the year attributable to:		
Owners of the Company	510,917	402,490
Non-controlling interests of Ningde Nuclear	878,970	—
Non-controlling interests of CGN Ninghe Investment	393,040	309,629
Total	1,782,927	712,119
Dividends paid to non-controlling interests of CGN Ninghe Investment	207,919	309,629
Net cash inflow (outflow) from operating activities	7,981,902	(257)
Net cash (outflow) inflow from investing activities	(799,691)	288,627
Net cash outflow from financing activities	(7,181,908)	(288,371)
Net cash inflow (outflow)	303	(1)

Note: Revenue for CGN Ningde Nuclear represents the consolidated results including financial information of Ningde Nuclear as disclosed in note 39 (h).

39. NON-CONTROLLING INTERESTS (Continued)

(h) Ningde Nuclear

	December 31, 2017 RMB'000
Current assets	5,967,546
Non-current assets	48,952,821
Current liabilities	9,010,238
Non-current liabilities	33,711,377
Equity attributable to owners of the Company	5,611,426
Non-controlling interests of Ningde Nuclear	6,587,326
	2017 RMB'000
Revenue	9,124,022
Profit and total comprehensive income for the year attributable to:	
Owners of the Company	748,753
Non-controlling interests	878,970
Total	1,627,723
Dividends paid to non-controlling interests	801,157
Net cash inflow from operating activities	7,986,049
Net cash outflow from investing activities	(908,584)
Net cash outflow from financing activities	(7,185,715)
Net cash outflow	(108,250)

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

40. CAPITAL RISK MANAGEMENT

The Group manages its capital to ensure that entities in the Group will be able to continue as a going concern while maximizing the return to equity owners through the optimization of the debt and equity balance. The Group's overall strategy remains unchanged throughout the year.

The capital structure of the Group consists of debt, which includes loans from ultimate holding company, fellow subsidiaries, non-controlling interests and associates, bank borrowings and notes payable, as disclosed in notes 33, 34 and 35 respectively, net of cash and cash equivalents and equity attributable to owners of the Company, comprising share capital, retained earnings and other reserves.

The management of the Group reviews the capital structure from time to time. As a part of this review, the management considers the cost of capital and the risks associated with each class of capital. Based on recommendations of the management, the Group will balance its overall capital structure through the payment of dividends, the issue of new shares, new debts or the redemption of existing debts.

41. FINANCIAL INSTRUMENTS

a. Categories of financial instruments

	December 31, 2017 RMB'000	December 31, 2016 RMB'000
Financial assets		
Derivative financial instruments classified as held for trading	4,592	13,937
Loans and receivables (including cash and cash equivalents)	52,056,647	17,885,152
Available-for-sale financial assets	195,310	195,310
	52,256,549	18,094,399
Financial liabilities		
Derivative financial instruments classified as held for trading	31,560	220,780
Amortized cost	242,401,145	193,748,948
	242,432,705	193,969,728

41. FINANCIAL INSTRUMENTS (Continued)

b. Financial risk management objectives and policies

The Group's major financial instruments include trade and bills receivables, amounts due from/to related parties, derivative financial instruments, restricted bank deposits, cash and cash equivalents, other deposits over three months, trade and other payables, loans from/payables to an associate, fellow subsidiaries, non-controlling interests and ultimate holding company, bank borrowings and notes payable. Details of the financial instruments are disclosed in the respective notes. The risks associated with these financial instruments include market risks (interest rate risk, foreign currency risk and other price risk), credit risk and liquidity risk. The policies on how to mitigate these risks are set out below. The management manages and monitors these exposures to ensure appropriate measures are implemented on a timely and effective manner.

Market risk

(i) Interest rate risk

The Group is exposed to fair value interest rate risk which arises from fixed rate bank borrowings, notes payable, restricted bank deposits, deposits over three months, loans to/from fellow subsidiaries, loans from an associate, loans from/payables to ultimate holding company and interest rate swap.

As at December 31, 2017, the Group is exposed to cash flow interest rate risk which arises from floating rate bank borrowings, loans from an associate, fellow subsidiaries and loans from non-controlling interests and cash and cash equivalents. The Group uses interest rate swap to reduce exposure to interest rate fluctuations associated with floating-rate debt. The Group's exposures to interest rates on financial liabilities are detailed in the liquidity risk management section of this note.

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

41. FINANCIAL INSTRUMENTS (Continued)

b. Financial risk management objectives and policies (Continued)

Market risk (Continued)

(i) Interest rate risk (Continued)

Sensitivity analysis

The sensitivity analyses below have been determined based on the exposure to interest rates for cash and cash equivalents, floating rate bank borrowings, notes payable, loans from an associate, fellow subsidiaries and ultimate holding company and interest rate swap at the end of the reporting period. The analysis is prepared assuming the financial instruments outstanding at the end of reporting period was outstanding for the whole year. A 10 basis point increase or decrease in interest rate on cash and cash equivalents and a 50 basis point increase or decrease in interest rate on floating rate bank borrowings, notes payable, loans from an associate, fellow subsidiaries and ultimate holding company and forward interest rate of interest rate swap are used which represent management's assessment of the reasonably possible changes in interest rates.

If interest rates had been 10 basis points higher/lower for cash and cash equivalents with all other variable held constant, the Group's post-tax profit for the year would increase/decrease by approximately RMB7,736,000 (2016: RMB6,342,000).

If the respective benchmark interest rates had been 50 basis points higher for floating rate bank borrowings, loans from an associate, fellow subsidiaries and ultimate holding company with all other variables held constant, the Group's post-tax profit (net of interest capitalized) for the year would decrease by:

	December 31, 2017 RMB'000	December 31, 2016 RMB'000
From liabilities with benchmark interest rate of LIBOR	5,462	4,960
From liabilities with benchmark interest rate of PBOC	461,156	285,759
	466,618	290,719

41. FINANCIAL INSTRUMENTS (Continued)

b. Financial risk management objectives and policies (Continued)

Market risk (Continued)

(i) Interest rate risk (Continued)

Sensitivity analysis (Continued)

If the respective benchmark interest rates had been 50 basis points lower for floating rate bank borrowings, notes payable, loans from an associate, fellow subsidiaries and ultimate holding company with all other variables held constant, the Group's post-tax profit (net of interest capitalized) for the year would increase by:

	December 31, 2017 RMB'000	December 31, 2016 RMB'000
From liabilities with benchmark interest rate of LIBOR	5,462	4,960
From liabilities with benchmark interest rate of PBOC	461,156	285,759
	466,618	290,719

If the forward interest rate of interest rate swap contracts had been 50 basis points higher and all other variables were held constant, the Group's post-tax profit for the year would increase by approximately RMB4,558,000 (2016: RMB3,811,000).

If the forward interest rate of interest rate swap contracts had been 50 basis points lower and all other variables were held constant, the Group's post-tax profit for the year would decrease by approximately RMB4,558,000 (2016: RMB1,055,000).

In the opinion of the management, the sensitivity analysis is unrepresentative of the interest rate risk as the year end exposure does not reflect the exposure during the year.

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

41. FINANCIAL INSTRUMENTS (Continued)

b. Financial risk management objectives and policies (Continued)

Market risk (Continued)

(ii) Currency risk

The Group's exposure to currency risk is attributable to cash and cash equivalents, loan to fellow subsidiaries, trade and other receivables, trade and other payables, loans from an associate and bank borrowings which are denominated in the currencies other than the functional currency of the relevant group entities. In addition, the Group entered into foreign currency forward contracts and currency swap contracts during the year which exposed the Group to currency risk. The management manages and monitors this exposure to ensure appropriate measures are implemented on a timely and effective manner.

The carrying amounts of the Group's major foreign currency denominated monetary assets and monetary liabilities other than the functional currency of the relevant group entities at the end of the reporting period are as follows:

	Assets		Liabilities	
	December 31,	December 31,	December 31,	December 31,
	2017	2016	2017	2016
	RMB'000	RMB'000	RMB'000	RMB'000
RMB	1,958,890	2,400,269	516,282	1,310,449
USD	1,341,878	1,193,896	835,909	464,926
CAD	—	—	25	25
EURO	2,149,679	520,966	8,629,027	8,526,417
GBP	70,106	4,393	66,829	247,032
HKD	8,610	14,988	813,003	5,794
ZAR	3,708	—	—	—
CHF	4,210	—	5,646	—
JPY	2,317	—	543	1,100

41. FINANCIAL INSTRUMENTS (Continued)

b. Financial risk management objectives and policies (Continued)

Market risk (Continued)

(ii) Currency risk (Continued)

Sensitivity analysis

The sensitivity analysis below has been determined based on a 5% increase/decrease in functional currency of respective group entities against the relevant foreign currencies. 5% is the sensitivity rate used and represents management's assessment of the reasonably possible change in foreign exchange rates. The sensitivity analysis includes only outstanding foreign currency denominated monetary items and adjusts their translation at the end of the reporting period for a 5% change in foreign currency rates. A positive number below indicates an increase in the Group's post-tax profit, where functional currency of respective group entities had strengthened 5% against the relevant foreign currency. For a 5% weakening of functional currency of respective group entities against the relevant foreign currency, there would be an equal and opposite impact on the profit for the year.

	2017 RMB'000	2016 RMB'000
Increase (decrease) in the Group's profit for the year		
– if USD strengthens against RMB	(61,311)	(46,317)
– if RMB strengthens against USD	(18,974)	(27,336)
– if RMB strengthens against EURO	323,967	400,273
– if RMB strengthens against GBP	(139)	10,312
– if RMB strengthens against HKD	30,165	(345)
– if RMB strengthens against JPY	(89)	55
– if RMB strengthens against CAD	1	—
– if RMB strengthens against CHF	61	—
– if RMB strengthens against ZAR	(158)	—

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

41. FINANCIAL INSTRUMENTS (Continued)

b. Financial risk management objectives and policies (Continued)

Market risk (Continued)

(ii) Currency risk (Continued)

Sensitivity analysis (Continued)

In relation to foreign currency forward contracts:

If the forward exchange rate had been 5% higher and all other variables were held constant, the Group's post-tax profit for the year would increase by approximately RMB69,468,000 (2016: RMB45,529,000).

If the forward exchange rate had been 5% lower and all other variables were held constant, the Group's post-tax profit for the year would decrease by approximately RMB72,429,000 (2016: RMB25,189,000).

In relation to the currency swap contracts:

If the exchange rate of the currency swap contracts had been 5% higher and all other variables were held constant, the Group's post-tax profit for the year would increase by approximately RMB39,000 (2016: RMB60,407,000).

If the exchange rate of the currency swap contracts had been 5% lower and all other variables were held constant, the Group's post-tax profit for the year would decrease by approximately RMB11,436,245 (2016: RMB102,782,000).

In the opinion of the management, the sensitivity analysis is unrepresentative of the foreign currency risk as the year exposure does not reflect the exposure during the year.

(iii) Other price risk

The Group is exposed to other price risk through its available-for-sale investments. As their fair value cannot be measured reliably, they are stated at cost less impairment at the end of the reporting period and are excluded in the Group's sensitivity analysis.

41. FINANCIAL INSTRUMENTS (Continued)

b. Financial risk management objectives and policies (Continued)

Credit risk

Credit risk refers to the risk that counterparty will default on its contractual obligations resulting in financial loss to the Group. At the end of the reporting period, the carrying amount of the respective recognized financial assets as stated in consolidated statements of financial position represents the Group's maximum exposure.

The Group has concentration of credit risk as 94.91% (2016: 92.17%) of the total trade receivables was due from the Group's largest group of customers under common control to credit risk under common control in PRC and Hong Kong at the end of the reporting period. The Group's remaining customers individually contribute less than 10% of the total trade receivables of the Group.

In the opinion of management, the Group has no significant credit risk with these largest group of customers under common control as the Group maintains long-term and stable business relationships with these companies. For other trade and other receivables, the management of the Group performs an ongoing individual credit evaluation of their customers' and counterparties' financial conditions, and is of the opinion that the outstanding debts are recoverable.

The Group has concentration of credit risk on amounts due from the ultimate holding company, fellow subsidiaries, non-controlling interests and associates at the end of the reporting period. Credit risk is considered as limited because the ultimate holding company, fellow subsidiaries, non-controlling interests and associates have positive operating results and/or cash flows.

Regarding balances with other related parties, the management of the Group assesses the recoverability by reviewing their financial position and results periodically and considers the credit risk to be insignificant.

In addition, the Group has concentration of credit risk arising from derivative financial instruments which are deposited or contracted with several banks and financial institutions.

The credit risk on liquid funds and derivative financial instruments are limited because the counterparties are banks and financial institutions with good reputation.

Other than the above mentioned concentration of credit risk, the Group does not have any other significant concentration of credit risk.

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

41. FINANCIAL INSTRUMENTS (Continued)

b. Financial risk management objectives and policies (Continued)

Liquidity risk

In the management of the liquidity risk, the Group monitors and maintains a level of cash and cash equivalents as well as undrawn banking and loan facilities 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 borrowings and notes payable to ensure compliance with loan covenants.

The directors of the Company have given consideration to the future liquidity of the Group in light of the fact that the Group had net current liabilities of RMB4,285,275,000 as at December 31, 2017. The management of the Group is satisfied that the Group will have sufficient financial resources to meet its future obligations and commitment as the Group has unutilized facilities from banking and financial institution of approximately RMB140,735,026,000 (2016: RMB96,738,584,000). In this regard, the directors of the Company consider that the Group's liquidity risk is significantly reduced and are satisfied that the Group will be able to meet in full its financial obligations as they fall due the foreseeable future. Accordingly, the consolidated financial statements have been prepared on a going-concern basis.

The following tables detail the Group's remaining contractual maturities for its non-derivative financial liabilities. The tables have been drawn up based on the undiscounted cash flows of financial liabilities based on the earliest date on which the Group can be required to pay. The table includes both interest and principal cash flows. To the extent that interest flows are floating rate, the undiscounted amount is derived from prevailing interest rate at the end of each reporting period.

In addition, the following tables detail the Group's liquidity analysis for its derivative financial liabilities. The tables have been drawn up based on the undiscounted contractual net cash outflows on derivative instruments that settle on a net basis. When the amount payable is not fixed, the amount disclosed has been determined by reference to the projected interest rates as illustrated by the yield curves existing at the end of each reporting period and projected exchange rates. The liquidity analysis for the Group's derivative financial instruments is prepared based on the contractual maturities as the management considers that the contractual maturities are essential for an understanding of the timing of the cash flows of derivatives.

41. FINANCIAL INSTRUMENTS (Continued)

b. Financial risk management objectives and policies (Continued)

Liquidity risk (Continued)

	Weighted average effective interest rate %	Repayable on demand or less than 1 year RMB'000	1 to 5 years RMB'000	Over 5 years RMB'000	Total undiscounted cash flows RMB'000	Carrying amount RMB'000
At December 31, 2017						
Trade and other payables	N/A	17,837,984	—	—	17,837,984	17,837,984
Amounts due to related parties	N/A	2,997,414	—	—	2,997,414	2,997,414
Notes payable	4.79%	1,047,250	7,089,237	—	8,136,487	7,995,867
Loans from ultimate holding company						
– fixed rate	3.70%	829,827	—	—	829,827	800,000
Loans from fellow subsidiaries						
– floating rate	5.10%	283,158	2,116,355	—	2,399,513	1,940,500
– fixed rate	4.92%	1,548,628	—	—	1,548,628	1,501,560
Loans from an associate						
– floating rate	4.18%	2,467,061	435,095	3,431,621	6,333,777	4,788,794
– fixed rate	4.26%	2,203,592	118,908	832,347	3,154,847	2,747,906
Loans from non-controlling interests						
– floating rate	2.81%	1,284,435	—	—	1,284,435	1,255,996
Bank borrowings						
– floating rate	4.39%	21,361,593	57,230,590	172,706,432	251,298,615	165,970,530
– fixed rate	4.78%	8,929,358	13,596,260	27,312,190	49,837,808	34,564,594
		60,790,300	80,586,445	204,282,590	345,659,335	242,401,145
Derivatives - net settlement						
Foreign currency forward contracts		35,843	—	—	35,843	31,466
Currency swaps		100	—	—	100	94
		35,943	—	—	35,943	31,560

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

41. FINANCIAL INSTRUMENTS (Continued)

b. Financial risk management objectives and policies (Continued)

Liquidity risk (Continued)

	Weighted average effective interest rate %	Repayable on demand or less than 1 year RMB'000	1 to 5 years RMB'000	Over 5 years RMB'000	Total undiscounted cash flows RMB'000	Carrying amount RMB'000
At December 31, 2016						
Trade and other payables	N/A	15,172,749	—	—	15,172,749	15,172,749
Amounts due to related parties	N/A	8,081,680	—	—	8,081,680	8,081,680
Notes payable	4.79%	6,190,223	6,890,454	2,116,033	15,196,710	13,593,568
Loans from ultimate holding company						
– floating rate	3.92%	234,255	—	—	234,255	225,500
– fixed rate	3.70%	828,101	—	—	828,101	800,000
Loans from fellow subsidiaries						
– floating rate	4.09%	2,076,106	—	—	2,076,106	2,001,242
– fixed rate	4.91%	1,716,081	—	—	1,716,081	1,650,000
Loans from an associate						
– floating rate	5.07%	3,139,070	1,314,450	2,022,003	6,475,523	5,319,910
– fixed rate	4.59%	1,110,901	278,788	552,171	1,941,860	1,615,500
Bank borrowings						
– floating rate	4.47%	15,458,286	47,597,403	100,091,526	163,147,215	110,045,643
– fixed rate	5.09%	11,167,713	13,608,529	22,104,321	46,880,563	35,243,156
		65,175,165	69,689,624	126,886,054	261,750,843	193,748,948
Derivatives - net settlement						
Foreign currency forward contracts		94,563	4,751	—	99,314	99,044
Currency swaps		20,517	1,073	—	21,590	21,437
Interest rate swaps		103,585	—	—	103,585	100,299
		218,665	5,824	—	224,489	220,780

The amounts included above for floating interest rate instruments for non-derivative financial liabilities are subject to change if changes in floating variable interest rates differ to those estimates of interest rates determined at the end of the reporting period.

41. FINANCIAL INSTRUMENTS (Continued)

b. Financial risk management objectives and policies (Continued)

Fair value measurement

Fair value measurement for financial instruments not measured at fair value on a recurring basis

The fair value of 2002 Corporate Bond as at December 31, 2016 is RMB4,000,040,000 as determined based on the quoted market price (Level 1).

The fair value of the other financial assets and financial liabilities (excluding derivative instruments) is determined in accordance with generally accepted pricing models based on discounted cash flow analysis.

The management considers that the carrying amounts of financial assets and financial liabilities recorded at amortized cost in the consolidated financial statements approximate their fair values.

Fair value measurements for financial instruments measured at fair value on a recurring basis

Some of the Group's financial assets and financial liabilities are measured at fair value at the end of the reporting period. The following table gives information about how the fair values of these instruments are determined:

Financial assets/liabilities	Fair value as at				Fair value hierarchy	Valuation technique and key inputs
	December 31, 2017		December 31, 2016			
	Assets RMB'000	Liabilities RMB'000	Assets RMB'000	Liabilities RMB'000		
Foreign currency forward contracts (see note 28)	354	31,466	13,816	99,044	Level 2	Discounted Cash Flow Future cash flows are estimated based on forward exchange rates (from observable forward exchange rates at the end of the reporting period) and contract forward exchange rates, discounted at a rate that reflects the credit risk of various counterparties

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

41. FINANCIAL INSTRUMENTS (Continued)

b. Financial risk management objectives and policies (Continued)

Fair value measurement (Continued)

Fair value measurements for financial instruments measured at fair value on a recurring basis (Continued)

Financial assets/liabilities	Fair value as at				Fair value hierarchy	Valuation technique and key inputs
	December 31, 2017		December 31, 2016			
	Assets RMB'000	Liabilities RMB'000	Assets RMB'000	Liabilities RMB'000		
Currency swap contracts (see note 28)	—	94	107	21,437	Level 2	Discounted Cash Flow Future cash flows are estimated based on exchange rates at the end of the reporting period and contract exchange rates, discounted at a rate that reflects the credit risk of various counterparties Monte Carlo Simulation Model Black Scholes Model Key inputs are U.S. swap for 2-30 years, Swap rate, CNY-denominated interest rate, price volatility, risk free rate, contract exchange rates
Interest rate swap contracts (see note 28)	4,238	—	14	100,299	Level 2	Discounted Cash Flow Future cash flows are estimated based on forward interest rates (from observable yield curves at the end of the reporting period) and contract interest rates, discounted at a rate that reflects the credit risk of various counterparties Monte Carlo Simulation Model Black Scholes Model Key inputs are U.S. swap for 2-30 years, Swap rate, CNY-denominated interest rate, price volatility, risk free rate, contract interest rates

There were no transfer amount level 1, 2 and 3 during both years.

42. CAPITAL COMMITMENTS

	December 31, 2017 RMB'000	December 31, 2016 RMB'000
Capital expenditure in respect of acquisition and construction of property, plant and equipment contracted for but not provided in the consolidated financial statements	15,067,271	4,563,779
Capital commitment in respect of available-for-sale investments (note 20)	60,270	—
Total	15,127,541	4,563,779

The Group's share of the capital commitments made jointly with the other venturer relating to its joint venture, Ningde Nuclear, is as follows:

	December 31, 2017 RMB'000	December 31, 2016 RMB'000
Capital expenditure in respect of acquisition and construction of property, plant and equipment contracted for but not provided in the consolidated financial statements	N/A	1,295,850

43. OPERATING LEASE COMMITMENTS

The Group as lessee

At the end of the reporting period, the Group had commitments for future minimum lease payments under non-cancelable operating leases which fall due as follows:

	December 31, 2017 RMB'000	December 31, 2016 RMB'000
Within one year	248,315	177,615
In the second to fifth years inclusive	470,857	406,156
Over five years	293,846	154,749
Total	1,013,018	738,520

Operating lease payments represent fixed rentals payable by the Group for certain of its office premises. Lease of rented premises are negotiated with fixed lease term for 1 to 15 years for 2017 and 1 to 16 years for 2016.

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

43. OPERATING LEASE COMMITMENTS (Continued)

The Group as lessor

During the year, rental income earned by the Group from its investment properties for approximately RMB21,511,000 (2016: RMB21,849,000).

All of the properties leased out have committed tenants for 1 to 12 years without termination options granted to tenants.

At the end of the reporting period, the Group had contracted with tenants for the following future minimum lease payments:

	December 31, 2017 RMB'000	December 31, 2016 RMB'000
Within one year	34,161	11,751
In the second to fifth years inclusive	20,403	22,883
Over five years	11,590	13,078
	66,154	47,712

44. PLEDGE OF ASSETS

At the end of reporting period, assets with the following carrying amounts were pledged to banks and related parties to secure loans from banks and related parties granted to the Group:

	Notes	December 31, 2017 RMB'000	December 31, 2016 RMB'000
Property, plant and equipment	14	15,822,726	17,059,177
Trade receivables from grid companies	25	3,273,348	1,803,953
Prepaid lease payments	22	134,874	116,929
Bank deposits		9,367	6,400
Interests in an associate	18	–	4,188,965
		19,240,315	23,175,424

At December 31, 2016, the collection right of trade receivables from grid companies of Lingdong Nuclear, Yangjiang Nuclear, Taishan Nuclear, Ling'ao Nuclear and Fangchenggang Nuclear were pledged to secure the banking facilities, loans from banks and related parties. At December 31, 2017, the collection right of trade receivables from grid companies of the above subsidiaries and Ningde Nuclear were pledged to secure the banking facilities, loans from banks and related parties.

45. RELATED PARTY TRANSACTIONS

(a) Significant related party transactions

Save as disclosed elsewhere in the consolidated financial statements, the Group entered into the following transactions with related parties during the year:

	2017 RMB'000	2016 RMB'000
Revenue of construction income from fellow subsidiaries*	783,879	375,823
Revenue of construction income from a joint venture*	—	761,509
Revenue of construction income from an associate*	3,067,771	1,440,214
Revenue of construction income from ultimate holding company*	18,045	195,226
Sales of equipment and other goods to ultimate holding company*	8,703	90
Sales of equipment and other goods to fellow subsidiaries*	114,272	184,540
Sales of equipment and other goods to a joint venture*	—	140,783
Sales of equipment and other goods to an associate*	65,189	30,898
Sales of electricity to a non-controlling interests with significant influence over the relevant subsidiary	5,332,837	5,166,074
Technical and training service revenue from an associate of CGNPC*	—	203,843
Technical and training service revenue from fellow subsidiaries*	14,808	56,683
Technical and training service revenue from ultimate holding company*	13,310	47,567
Technical and training service revenue from a joint venture*	—	395,482
Technical and training service revenue from an associate*	569,744	297,242
Purchase of nuclear fuel from a fellow subsidiary	3,416,561	1,934,497
Construction cost payable to and acquisition of property, plant and equipment from fellow subsidiaries	45,541	286,041
Purchase of goods or rendering of service from a non-controlling interests	37,148	23,075

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

45. RELATED PARTY TRANSACTIONS (Continued)

(a) Significant related party transactions (Continued)

	2017 RMB'000	2016 RMB'000
Purchase of goods or rendering of service from ultimate holding company	70,998	98,831
Purchase of goods or rendering of service from fellow subsidiaries	2,241,513	1,172,733
Purchase of goods or rendering of service from an associate	636,169	1,777
Rental income from ultimate holding company	259	—
Rental income from fellow subsidiaries	11,771	3,112
Rental income from an associate	237	2,924

* Represented revenue from related parties which are also under control by the PRC Government amounting to RMB3,054,840,000 (2016: RMB4,129,900,000) in aggregate for the year ended December 31, 2017.

(b) Compensation of key management personnel

The remuneration of key management (including directors and supervisors) during the year were as follows:

	2017 RMB'000	2016 RMB'000
Short-term benefits	7,491	13,467
Post-employment benefits	449	583
	7,940	14,050

The remuneration of key management is determined having regard to the performance of individuals and market trends.

45. RELATED PARTY TRANSACTIONS (Continued)

(c) Significant transactions with other government-related entities

The Group is ultimately controlled by the PRC government and the Group operates in an economic environment predominated by the entities controlled, jointly controlled or significantly influenced by the PRC government.

In addition to transactions and balances with ultimate holding company, fellow subsidiaries, associates, joint ventures and non-controlling interests with significant influence over the relevant subsidiary disclosed in note 45(a) and elsewhere in the consolidated financial statements, significant related party transactions and balances conducted with other government-related entities in the normal course of businesses of the Group for the year are as follows:

	2017 RMB'000	2016 RMB'000
Sales of electricity to power grids	36,210,378	22,948,559
Service fee for disposal of spent fuel	1,187,125	1,061,545
	December 31, 2017 RMB'000	December 31, 2016 RMB'000
Trade receivables	4,345,951	2,551,941

The transactions conducted with government-related entities are based on terms as set out in the underlying agreements, based on statutory rates (in the case of sales of electricity) or market prices or actual cost incurred, or as mutually agreed.

The Group has entered into various transactions, including deposits placements, borrowings (other than notes payable) and other general banking facilities, with banks and financial institution which are government-related entities. Thus, the related interest income and expenses are with government-related entities.

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

46. CASH-SETTLED SHARE-BASED PAYMENT

The Group has set up an H-share Appreciation Rights Scheme (“SAR”) for core staff who exert significant impact on the Company’s strategic target, including certain Directors, senior management (excluding independent non-executive Directors and external Directors) 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”). SAR 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 of the directors of the Company on November 5, 2015. Pursuant to the initial scheme, 218,880,000 units of SAR were granted to Incentive Recipients of the Group at the exercise price of HKD3.50 per unit on November 5, 2015. One third of the total number of SAR are vested and entitled on December 19, 2016, one third of the total number of SAR are vested and entitled on December 18, 2017 and the remaining one third of the total number of SAR are vested and entitled on December 18, 2018.

The secondary implementation plan was approved on December 14, 2017. Pursuant to the secondary scheme, 568,970,000 units of SAR were granted at the exercise price of HKD2.09 per unit on December 14, 2017. For the secondary scheme, one third of the total number of SAR are vested and entitled on December 16, 2019, one third of the total number of SAR are vested and entitled on December 15, 2020 and the remaining one third of the total number of SAR are vested and entitled on 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. However, no H Shares will actually be issued to any Incentive Recipients. The SARs will have exercisable periods of 3 years after the respective vesting dates. In addition, the exercise of SAR is also subject to certain services periods and performance condition of the Group and Incentive Recipients including achievements of certain performance targets.

46. CASH-SETTLED SHARE-BASED PAYMENT (Continued)

As at December 31, 2017, the total fair value of outstanding SAR is approximately RMB285,200,000 (2016: RMB48,992,000), which was calculated using Black-Scholes pricing model. The inputs into the model were as follows:

	SAR December 31, 2017	SAR December 31, 2016
Share price (in HKD)	2.12	2.13
Expected volatility	35.34-36.37%	37.36 - 37.60%
Expected dividend yield	2.755%	2.338%
For the initial implementation plan of the SAR:		
Exercise price (in HKD)	3.50	3.50
Expected life	1.96-3.96 years	2.96 - 4.96 years
Risk-free interest rate	1.285 - 1.519%	1.273 - 1.553%
Fair value at measurement date (in HKD)	0.05-0.21	0.19 - 0.31
For the secondary implementation plan of the SAR		
Exercise price (in HKD)	2.09	N/A
Expected life	4.95 - 6.95 years	N/A
Risk-free interest rate	1.604-1.693%	N/A
Fair value at measurement date (in HKD)	0.54-0.59	N/A

Expected volatility was determined with reference to the historical volatility of the Company's and other listed electricity generation companies' share prices. The expected life used in the model has been adjusted, based on management's best estimate for the effects of non-transferability exercised restrictions and behavioural considerations.

At December 31, 2017, the Group has recorded liabilities of RMB24,950,000 (2016: RMB28,708,000). The Group recognized a total gain of RMB6,590,000 for the year ended December 31, 2017 (2016: a total loss of RMB18,018,000) in relation to SAR approved by the Group.

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

46. CASH-SETTLED SHARE-BASED PAYMENT (Continued)

The table below discloses movement of the Company's employees for the initial and secondary implementation plan:

	Number of Initial SAR '000	Number of Secondary SAR '000	Number of Total SAR '000
Outstanding as at January 1, 2017	218,880	—	218,880
Addition for the acquisition of a subsidiary	21,600	—	21,600
Granted for the year	—	568,970	568,970
Forfeited during the year	(27,360)	—	(27,360)
Outstanding as at December 31, 2017	213,120	568,970	782,090

47. BUSINESS COMBINATION OTHER THAN INVOLVING ENTITIES UNDER COMMON CONTROL

The Group's subsidiary, CGN Ninghe Investment held 46% equity interest in Ningde Nuclear as a joint venture at December 31, 2016. Ningde Nuclear is engaged in nuclear power generation and sales of nuclear electricity.

CGN Ninghe Investment entered into an agreement with Datang Power in December 2016, to act in concert over the decisions directing the relevant activities of Ningde Nuclear, of which Datang Power will vote in same direction with CGN Ninghe Investment during the shareholders' meetings and board of directors' meetings of Ningde Nuclear. Accordingly, the Group has the ability to direct the relevant activities of Ningde Nuclear. The agreement is effective on January 1, 2017 which is considered as the date of acquisition and the Group obtained control over Ningde Nuclear since then. Ningde Nuclear was acquired so as to continue the expansion on the scale of the Group's nuclear power business.

The business combination is achieved without the transfer of consideration and has been accounted for using the acquisition method. The amount of goodwill arising as a result of the business combination was approximately RMB419,243,000.

Acquisition-related costs have been excluded from the cost of acquisition.

After the business combination, Ningde Nuclear is included in the nuclear power operation and sales of electricity and related technical services segment.

47. BUSINESS COMBINATION OTHER THAN INVOLVING ENTITIES UNDER COMMON CONTROL (Continued)

Assets and liabilities recognized at the date of acquisition

	RMB'000
NON-CURRENT ASSETS	
Property, plant and equipment	49,227,894
Intangible assets	234,723
Derivative financial instruments	2,945
Prepayments and value-added tax recoverable	1,086,861
Prepaid lease payments	545,131
Deposits for property, plant and equipment	309,387
	51,406,941
CURRENT ASSETS	
Inventories	4,794,378
Prepaid lease payments	14,385
Trade receivables (note)	1,445,840
Prepayments and other receivables	892,383
Amounts due from the Group	829
Cash and cash equivalents	108,552
	7,256,367
CURRENT LIABILITIES	
Trade and other payables	2,216,608
Amounts due to the Group	641,681
Amounts due to other related parties	756,330
Loans from an associate	1,000,000
Income tax payable	17,049
Bank borrowings - due within one year	3,354,294
Derivative financial instruments	1,078
	7,987,040

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

47. BUSINESS COMBINATION OTHER THAN INVOLVING ENTITIES UNDER COMMON CONTROL (Continued)

Assets and liabilities recognized at the date of acquisition (Continued)

	RMB'000
NON-CURRENT LIABILITIES	
Bank borrowings - due after one year	37,988,706
Deferred tax liabilities (note 21)	165,608
Provisions	464,469
Staff cost payables	2,832
	38,621,615
	12,054,653

Assets and liabilities of Ningde Nuclear recognized at the date of acquisition was remeasured at fair value. The fair value is estimated by an independent and professionally qualified valuer using asset based approach.

Note:

The trade receivables acquired with an aggregate fair value of RMB1,445,840,000 have gross contractual amounts of RMB1,445,840,000. The best estimate at acquisition date of contractual cash flows not expected to be collected was nil.

Goodwill arising on acquisition

	RMB'000
Consideration paid	—
Fair value of previously equity interest held as interest in a joint venture	5,964,383
Plus: Non-controlling interests (54%)	6,509,513
Less: Fair value of identifiable net assets acquired (100%)	(12,054,653)
Goodwill arising on acquisition	419,243

47. BUSINESS COMBINATION OTHER THAN INVOLVING ENTITIES UNDER COMMON CONTROL (Continued)

Net cash inflow arising on acquisition

	RMB'000
Cash consideration	—
Less: Cash and cash equivalents acquired	(108,552)
Net cash inflow arising on acquisition	108,552

Goodwill arose on the acquisition of Ningde Nuclear because the cost of the combination included a control premium. In addition, the goodwill included amounts in relation to expected synergies, revenue growth, future market development and the assembled workforce for Ningde Nuclear. These benefits could not be separately recognized from goodwill because they do not meet the recognition criteria for identifiable intangible assets.

Non-controlling interests

The non-controlling interest (54%) in Ningde Nuclear recognized at the acquisition date was measured by reference to the proportionate share of recognized amounts of net assets of Ningde Nuclear and amounted to RMB6,509,513,000.

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

47. BUSINESS COMBINATION OTHER THAN INVOLVING ENTITIES UNDER COMMON CONTROL (Continued)

Fair value of equity interest previously held in Ningde Nuclear as at acquisition date

The fair value of Ningde Nuclear, an unlisted company, was estimated by an independent and professionally qualified valuer using present value techniques. The fair value is determined using income approach based on expected cash flows generated by Ningde Nuclear. The calculation uses cash flow projection of Ningde Nuclear from the perspective of market participants, covering a 40-year period at a discount rate of 7.8% per annum. Other key assumptions for the expected cash flows related to the estimation of cash inflows/outflows which include expected sales and gross profit margin. Cash flows and discount rates reflect assumptions that market participants could use when pricing the relevant equity interest.

As at January 1, 2017, the fair value of previously equity interest in Ningde Nuclear held as interest in a joint venture was RMB5,964,383,000, while the book value of previously equity interest in Ningde Nuclear held as interest in a joint venture was RMB4,179,301,000, the difference of RMB1,785,082,000 had been recognized as a gain on remeasurement of previously held interest in a joint venture becoming a subsidiary and included in the "other gain and losses" line item in the consolidated statement of profit or loss and other comprehensive income.

Impact of acquisition on the revenue and results of the Group

The acquisition of Ningde Nuclear had been completed on January 1, 2017. During the year ended December 31, 2017, Ningde Nuclear contributed approximately RMB9,124,022,000 to the Group's revenue and Ningde Nuclear's profit in aggregate for the period from the date of acquisition to December 31, 2017 is approximately RMB1,627,723,000.

48. DISPOSAL OF SUBSIDIARIES

In December 2016, Suzhou Nuclear Power Research Institute Co., Ltd., a wholly owned subsidiary of the Company, entered into a sale and purchase agreement with an independent third party, 深圳市集泰實業發展有限公司 Shenzhen Jitai Industry Development Co., Ltd., to dispose of all of its 90% equity interest in 南京新蘇熱電有限公司 Nanjing Xinsu Thermoelectricity Co., Ltd. (“Nanjing Xinsu”) at the consideration of RMB127,200,000. Nanjing Xinsu is engaged in steam supply and services. As at December 31, 2016, the consideration has been received in advance as other payable (note 31) and the assets and liabilities of Nanjing Xinsu have been reclassified as assets classified as held for sale and liabilities directly associated with assets classified as held for sale as at December 31, 2016. The disposal has been completed on January 20, 2017.

Analysis of assets and liabilities over which control was lost:

	RMB'000
Property, plant and equipment	8,550
Intangible assets	616
Other assets	12,143
Deferred tax assets	58
Prepaid lease payments	4,645
Prepayments and other receivables	234
Amounts due from related parties	139
Cash and cash equivalents	29,592
Loan to the Company	3,630
Trade and other payables	(699)
Net assets disposed of	58,908
	RMB'000
Gain on disposal of a subsidiary:	
Consideration, net of transaction cost	125,751
Non-controlling interests	4,677
Less: Net assets disposed of	58,908
Gain on disposal	71,520
	RMB'000
Net cash inflow arising on disposal:	
Bank balances and cash disposed of	29,592

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

48. DISPOSAL OF SUBSIDIARIES (Continued)

In October 2016, the Group disposed of all of its 60% of equity interest in China Techenergy Co., Ltd. to a fellow subsidiary at a cash consideration of RMB107,829,000.

Assets and liabilities of China Techenergy Co., Ltd. at the date of disposal were as follows:

	Carrying amount RMB'000
Property, plant and equipment	94,262
Intangible assets	250,991
Deferred tax assets	3,836
Inventories	156,291
Trade and bills receivables	191,712
Prepayments and other receivables	12,137
Amount due from related parties	554
Cash and cash equivalents	52,398
Trade and other payables	301,866
Amounts due to related parties	219,913
Bank borrowings - due within one year	10,013
Deferred income	32,177
Net assets disposed of	198,212
Consideration received	107,829
Non-controlling interests	52,044
Loss on disposal	(38,339)

Analysis of net inflow of cash and cash equivalents in respect of the disposal of China Techenergy Co., Ltd.:

	RMB'000
Consideration received	107,829
Cash and cash equivalents disposed of	(52,398)
	55,431

49. RECONCILIATION OF LIABILITIES ARISING FROM FINANCING ACTIVITIES

The table below details changes in the Group's liabilities arising from financing activities, including both cash and non-cash changes. Liabilities arising from financing activities are those for which cash flows were, or future cash flows will be classified in the Group's consolidated statement of cash flows as cash flows from financing activities.

	Notes payable RMB'000 Note 35	Bank borrowings RMB'000 Note 34	Loan from an associate RMB'000 Note 33	Loan from fellow subsidiaries RMB'000 Note 33	Loan from ultimate holding company RMB'000 Note 33	Loan from non-controlling interests RMB'000 Note 33	Divided payable to the owner of the Company RMB'000	Interest payables of notes RMB'000 (Note (i))	Amount due to related parties RMB'000 Note 32	Total RMB'000
At January 1 2017	13,593,568	145,288,799	6,935,410	3,651,242	1,025,500	—	—	228,925	8,081,680	178,805,124
Financing cash flows	(5,600,000)	4,083,197	(391,293)	(209,270)	(225,500)	1,236,390	(2,281,201)	(386,330)	(2,579,411)	(6,353,418)
Acquisition of a subsidiary	—	41,343,000	1,000,000	—	—	—	—	—	754,466	43,097,466
Trade financing (note (ii))	—	69,586	—	—	—	—	—	—	—	69,586
Repayment on acquisition of subsidiaries	—	—	—	—	—	—	—	—	(5,536,330)	(5,536,330)
Dividends declared	—	—	—	—	—	—	2,317,845	—	1,933,722	4,251,567
Foreign exchange	2,299	505,401	(7,417)	88	—	19,606	(36,644)	—	(101,252)	382,081
Interest expenses	—	9,245,141	—	—	—	—	—	321,377	444,539	10,011,057
At 31 December 2017	7,995,867	200,535,124	7,536,700	3,442,060	800,000	1,255,996	—	163,972	2,997,414	224,727,133

Note:

- (i) The amount of interest payables of notes payables is included in trade and other payables in note 31.
- (ii) The amount from trade financing was offset against trade and other payables as the bank has paid to the suppliers directly with no cash flow effect to the Group.

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

50. PARTICULARS OF PRINCIPAL SUBSIDIARIES OF THE COMPANY

Name of subsidiary	Place of establishment	Registered capital		Equity interests attributable to the Group		Principal activities
		December 31, 2017	December 31, 2016	December 31, 2017	December 31, 2016	
CNPRI*	PRC	RMB845,550,000	RMB845,550,000	100%#	100%#	Nuclear power technology development and management service
GNIC*	PRC	RMB16,000,000,000	RMB16,000,000,000	100%#	100%#	Investment holding and sales of electricity
GNPJC**	PRC	USD400,000,000	USD400,000,000	75%#	75%#	Nuclear power generation
Ling'ao Nuclear*	PRC	RMB3,323,224,000	RMB3,323,224,000	100%#	100%#	Nuclear power generation
Lingdong Nuclear*	PRC	RMB5,348,000,000	RMB5,348,000,000	100%#	100%#	Nuclear power generation
Yangjiang Nuclear*	PRC	RMB15,506,000,000	RMB14,646,000,000	59%#	76%#	Nuclear power generation
Ningde Nuclear*	PRC	RMB 200,000,000	RMB 200,000,000	46%#	N/A (note 19)	Nuclear power generation
CGN Investment*	PRC	RMB100,000,000	RMB100,000,000	77.78%#	77.78%#	Investment holding
CGN Ninghe Investment*	PRC	RMB100,000,000	RMB100,000,000	56.52%#	56.52%#	Investment holding
Taishan Nuclear**	PRC	RMB24,400,000,000	RMB24,400,000,000	70%#	70%#	Nuclear power generation
Taishan Investment*	PRC	RMB30,000,000	RMB30,000,000	60%#	60%#	Investment holding
CGN Engineering*	PRC	RMB1,286,000,000	RMB1,286,000,000	100%#	100%#	Construction and maintenance services for nuclear power stations
Fangchenggang Nuclear*	PRC	RMB5,850,000,000	RMB5,850,000,000	61%#	61%#	Nuclear power generation
Lufeng Nuclear*	PRC	RMB2,870,000,000	RMB840,000,000	100%#	100%#	Nuclear power generation

* Limited liability company established in the PRC.

** A sino-foreign joint venture with limited liability.

The subsidiary is directly held by the Company.

The subsidiary is indirectly held by the Company.

The above table lists the subsidiaries of the Company which, in the opinion of the directors, principally affected the results for the year or formed a substantial portion of the net assets of the Group. To give details of all the subsidiaries would, in the opinion of the directors, result in particulars of excessive length.

Saving for Yangjiang Nuclear and Taishan Nuclear, none of the subsidiaries of the Company had issued any debt securities at the end of the year.

51. COMPOSITION OF THE GROUP

Information about the composition of the Group at the end of the reporting period is as follows:

Principal activity	Place of establishment and operation	Number of wholly-owned subsidiaries	
		2017	2016
Nuclear power technology development	PRC	2	2
Nuclear power generation	PRC	3	3
Nuclear power operating and consulting services	PRC	2	2
Nuclear power technology development and management service	PRC	2	2
Environmental protection of nuclear power	PRC	1	1
Investment holding and sales of electricity	PRC	1	1
Construction and maintenance seniors for nuclear power stations	PRC	1	1
Agent of import and export	PRC	1	1
Inactive	PRC	1	1
		14	14

Principal activity	Place of establishment and operation	Number of non-wholly-owned subsidiaries	
		2017	2016
Investment holding	PRC	3	3
Nuclear power generation	PRC	5	4
Nuclear power technology development	PRC	1	1
Maintenance services for nuclear power station	PRC	1	2
Management of nuclear power station	PRC	1	1
Construction and maintenance services for nuclear power stations	PRC	1	1
Inactive	PRC	2	1
		14	13

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

52. STATEMENT OF FINANCIAL POSITION AND RESERVES OF THE COMPANY

	December 31, 2017 RMB'000	December 31, 2016 RMB'000
NON-CURRENT ASSETS		
Property, plant and equipment	204,894	117,648
Intangible assets	461,995	320,775
Investments in subsidiaries	75,945,215	74,195,314
Investment in an associate	2,037,297	1,981,983
Loan to a subsidiary	4,600,000	4,000,000
Prepayments and value-added tax recoverable	35,164	—
Deposits for property, plant and equipment	1,132	1,736
	83,285,697	80,617,456
CURRENT ASSETS		
Trade receivables	677,809	545,212
Prepayments and other receivables	618,192	23,946
Amounts due from related parties	3,341,545	6,985,536
Loans to subsidiaries	5,961,000	11,746,000
Other deposits over three months	100,000	100,000
Cash and cash equivalents	7,101,335	3,299,429
	17,799,881	22,700,123
CURRENT LIABILITIES		
Trade and other payables	471,416	519,542
Amounts due to related parties	41,875	5,574,688
Loans from ultimate holding company	800,000	800,000
Loans from fellow subsidiaries	—	1,000,000
Loans from subsidiaries	8,014,455	2,227,840
Notes payable - due within one year	—	4,000,000
Derivative financial instruments	—	100,299
	9,327,746	14,222,369

52. STATEMENT OF FINANCIAL POSITION AND RESERVES OF THE COMPANY (Continued)

	December 31, 2017 RMB'000	December 31, 2016 RMB'000
NET CURRENT ASSETS	8,472,135	8,477,754
TOTAL ASSETS LESS CURRENT LIABILITIES	91,757,832	89,095,210
NON-CURRENT LIABILITIES		
Notes payable - due after one year	4,495,867	4,493,568
Staff cost payables	10,309	9,601
	4,506,176	4,503,169
NET ASSETS	87,251,656	84,592,041
CAPITAL AND RESERVES		
Share capital	45,448,750	45,448,750
Reserves	41,802,906	39,143,291
TOTAL EQUITY	87,251,656	84,592,041

Notes to the Consolidated Financial Statements

For the year ended December 31, 2017

52. STATEMENT OF FINANCIAL POSITION AND RESERVES OF THE COMPANY (Continued)

Movement in the Company's share capital and reserves

	Share capital RMB'000	Capital reserve RMB'000 (note)	Statutory surplus reserve RMB'000	Retained earnings RMB'000	Total equity RMB'000
At January 1, 2016	45,448,750	26,936,494	1,110,925	6,196,590	79,692,759
Dividend declared	—	—	—	(1,908,814)	(1,908,814)
Appropriation of general reserve	—	—	680,810	(680,810)	—
Profit and total comprehensive income for the year	—	—	—	6,808,096	6,808,096
At December 31, 2016	45,448,750	26,936,494	1,791,735	10,415,062	84,592,041
Dividend declared	—	—	—	(2,317,845)	(2,317,845)
Appropriation of general reserve	—	—	497,746	(497,746)	—
Profit and total comprehensive income for the year	—	—	—	4,977,460	4,977,460
At December 31, 2017	45,448,750	26,936,494	2,289,481	12,576,931	87,251,656

Note:

Capital reserves of the Company represents the excess of fair value of assets and liabilities transferred from CGNPC to the Company at March 25, 2014 and cash paid for subscription of ordinary shares less the par value of issued ordinary shares deducted by share issue costs.

53. SUBSEQUENT EVENTS

On February 11, 2018, the plan of the proposed initial public offering on the Main Board of the PRC Stock Exchange (“A Share Offering”) was approved by the directors of the Company. The plan will be submitted to the shareholders of the Company for approval and is also subject to the approval by the China Securities Regulatory Commission and other relevant regulatory authorities. According to the plan of the proposed A Share Offering, par value per Share to be issued is RMB1.00, and the number of A Shares shall not exceed 5,049,861,100 Shares. Proceeds raised from the A Share Offering will be used for the construction of nuclear power units, Yangjiang Units 5 and 6 and Fangchenggang Units 3 and 4, and replenishment of working capital. Assuming a total of 5,049,861,100 A Shares are permitted to be issued, its percentage to the Group’s enlarged share capital is approximately 10.00%. Details are further set out in the announcement of the Company dated 11 February 2018.

According to the investment agreement dated December 29, 2017, entered into between the Company and 深圳國同清潔能源合夥企業 Shenzhen Guotong Clean Energy Partners Corporation (Limited Partnership) (“Shenzhen Guotong”), the Company and Shenzhen Guotong established a PRC entity to hold 61% equity interest in Fangchenggang Nuclear, a subsidiary of the Company. The Company and Shenzhen Guotong have agreed to contribute the Company’s 61% equity interest in Fangchenggang Nuclear and cash of approximately RMB3,039,941,000, for 60% and 40% equity interest in the PRC entity respectively. The Company would account for the PRC entity as a subsidiary and it would be consolidated by the Group. The PRC entity was established on January 10, 2018 and the procedures of transfer of the 61% equity interest in Fangchenggang Nuclear were completed on February 11, 2018. The directors of the Company are in the process of assessing the financial impact of this transaction.

On March 8, 2018, the Board considered and approved the proposal (the “Proposal”) of acquiring the equity interests of three companies. Pursuant to the Proposal, the Company will acquire 100% equity interests of 中廣核海洋能源有限公司 CGN Ocean Power Co., Ltd. and 100% equity interests of 中廣核河北熱電有限公司 CGN Hebei Thermal Power Co., Ltd., both of which are held by CGNPC, and 100% equity interests of 中廣核電力銷售有限公司 CGN Power Sales Co., Ltd which is held by 深圳市能之匯投資有限公司 Shenzhen Nengzhihui Investment Co., Ltd., a fellow subsidiary of the Company. For further details, please refer to the announcement of the Company dated March 8, 2018.

Company Information

Differences in Accounting Data between the PRC Accounting Standards for Business Enterprises and IFRSs

The differences between the profit attributable to owners of the Company and the equity attributable to owners of the Company in the consolidated financial statements of the financial report disclosed by the Group in accordance with the PRC Accounting Standards for Business Enterprises and IFRSs are as follows:

	Profit attributable to owners of the Company		Equity attributable to owners of the Company	
	2017 RMB'000	2016 RMB'000	December 31, 2017 RMB'000	December 31, 2016 RMB'000
In accordance with the PRC Accounting Standards for Business Enterprises	9,625,443	7,404,904	64,918,988	55,463,627
Items and amounts adjusted in accordance with the IFRSs:				
Capitalisation adjustment for foreign exchange gains of foreign currency borrowings (a)	(152,387)	(162,210)	918,687	1,071,074
Safe production expenses (b)	27,263	44,240	—	—
In accordance with the IFRSs	9,500,319	7,286,934	65,837,675	56,534,701

The reasons for the differences are described below:

- (a) In accordance with the PRC Accounting Standards for Business Enterprises, the exchange differences of the principal and interest of foreign currency borrowings should be capitalised and accounted for as the costs of the assets eligible for capitalisation. In accordance with the IFRSs, only the part of the exchange differences arising from the interest expense adjustment for foreign currency borrowings can be capitalised, the rest is accounted for through profit or loss for the period.
- (b) Pursuant to the relevant PRC regulations for construction companies, the Group's subsidiary, CGN Engineering, is required to set aside an amount to maintenance, improvement and other similar funds. The funds can be used for maintenance and improvements of safety at the construction sites, and are not available for distribution to owners of the subsidiaries. The funds can be accrued through profit and loss in accordance with the PRC Accounting Standards for Business Enterprises. In accordance with the IFRSs, only the funds utilized can be recorded through profit and loss.

Other Information

Joint Company Secretaries

Mr. Wei Qiyan
Ms. Mok Ming Wai

Auditor

Deloitte Touche Tohmatsu
35/F, One Pacific Place, 88 Queensway,
Hong Kong

Principal Bankers

China Development Bank Corporation
(Shenzhen Branch)
11/F – 15/F, Citic Building,
1093 Shennan Zhong Road,
Futian District, Shenzhen,
Guangdong Province, PRC

Bank of China Limited (Shenzhen Branch)
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,
4003 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, Hong Kong

PRC Law
King & Wood Mallesons
28/F, Landmark, 4028 Jintian Road, Futian District,
Shenzhen, PRC

Agricultural Bank of China Limited
(Shenzhen Branch)
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 Annual Report was available on our website at www.cgnp.com.cn on March 28, 2018 and posted on March 29, 2018 to Shareholders who have elected to receive corporate communications from the Company in printed form.

Those Shareholders who (a) received our 2017 Annual Report electronically and would like to receive a printed copy or vice versa; or (b) received a printed copy of our 2017 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 AGM is scheduled to be held in May 2018, 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 separately.

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 separately.

H Share Registrar

Computershare Hong Kong Investor Services Limited
Address: Shops 1712-1716, 17th Floor, Hopewell Centre, 183 Queen's Road East, Wan Chai, Hong Kong

Our Stock Name and Stock Code

Stock Name: CGN Power

Stock Code: HKSE 1816

Contact Details

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

E-mail: IR@cgnpc.com.cn

Website: www.cgnp.com.cn

FEEDBACK FORM

Dear Reader:

Thank you for reading the 2017 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 2017 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								
Finance, Assets and Investment								
Financial Performance and Analysis								
Assets and Investment								
Business Performance and Outlook								
Industry Overview								
Business Performance and Analysis								
Future Outlook								
Capitals								
Production Capital								
Intellectual Capital								
Human Capital								
Financial Capital								
Environmental Capital								
Social and Relationship Capital								
Corporate Governance								
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: Investor Relations Department, 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.