

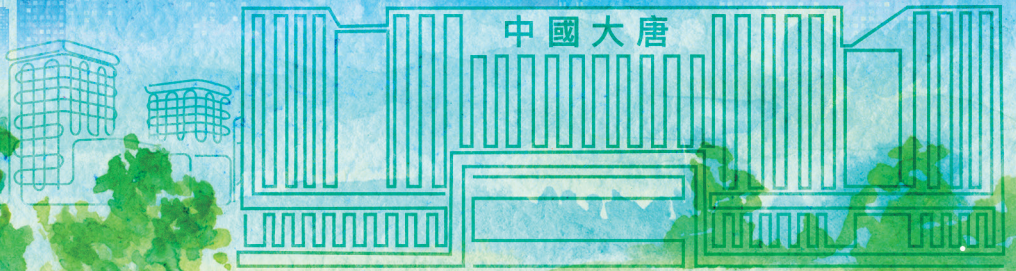


# 大唐環境產業集團股份有限公司

## Datang Environment Industry Group Co., Ltd.\*

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

Stock Code: 1272



# 2018

## ANNUAL REPORT

\* For identification purpose only

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中國大唐

# Chairman's Statement

*Chairman of the Board*  
**JIN Yaohua**



## Chairman's Statement (Continued)

### Dear Shareholders,

In 2018, the Company insisted on new development concepts, comprehensively advanced high quality development, continuously focused on the whole industrial chain of coal-fired power plant environmental protection and energy conservation and the green, clean and efficient use of energy, and has been committed to contributing to the green development of the State. With leading professional technology, established management system, outstanding talent teams, prominent main business and rational industrial layout, the Company has gradually grown into a leader and dominant player in the field of energy conservation and environmental protection of the power industry of the PRC.

In 2018, encountering perplexed and complicated international conditions and external environment, the Company seized the new conditions of economic and social development, accurately took the chances of new trends of energy and power development and industry transformation and upgrading, and tightly held the new opportunities energy revolution and supply-side structural reform. The Company strengthened establishment of core capability through establishment of technological innovation and management innovation, and developed marketized system and mechanism through deepening the reform. The Company constantly improved the level of professional services and capability of external development, and comprehensively turned a new page for the high quality development of the Company, resulting in further enhancement on capabilities of core competitiveness and sustainable development.

Looking forward, the Company will continue to insist on regarding development as the first mission, and adhere to the development direction of marketization, professionalism, internationalization, legalization and informatization to deepen the reform and innovation with the help of the platforms and resources provided by China Datang, its controlling shareholder, as well as the opportunities of "Double Hundred Actions" of reform by the state-owned enterprises. The Company was also committed to possessing top-notch human resources, innovation capability and equipment technology, forming a strong technological innovation strength and value creation capability, and continuously improving its capability of core competitiveness and sustainable development to strive for development to become the first-rate and internationally renowned energy conservation and environmental protection enterprise, thereby rewarding the Shareholders and society with considerable return by its remarkable results, making greater contribution in promoting green development and creating a beautiful China!

Last but not least, on behalf of the Board, I hereby express my sincere gratitude to all the trust and support from the Shareholders, business partners and friends from the society!

*Chairman of the Board*  
**JIN Yaohua**



22 March 2019

# Message From the General Manager

*General Manager*

**HOU Guoli**



## Message From the General Manager (Continued)

### Dear Shareholders,

In 2018, with the tremendous support of all Shareholders, and the precise strategy of the Board, the Company adhered to implement the philosophy of new development, and constantly advanced high quality development. Encountering the challenges of decline in operating efficiency of power generation enterprises and slump in infrastructure and technological renovation projects, the operating management and the overall staff of the Company worked hand in hand to fight against obstacles to achieve revenue of RMB8,588 million, net profits of RMB783 million and return on shareholders' equity of 11%, maintaining a steady development trend and better operating results.

In 2018, the Company continued to strengthen foreign development, successfully entered into daily maintenance projects for environmental protection facilities of 2 power plants of State Power Investment Corporation Limited and the maintenance project for desulfurization facilities of 1 power plant of China Huaneng Group Co., Ltd., obtaining breakthroughs in the concessionary business apart from system. The Company also successfully entered into various projects including Huadian Kemen dust removal, Inner Mongolia Haarlem energy desulfurization, plume treatment in silicon industry of Sino Energy, flue gas de-plume of CR Power and other atmospheric pollution treatment projects as well as the project of the sixth sewage treatment plant in Xining City, obtaining new achievement in market expansion of construction industry. The Company entered into rooftop photovoltaic project in Thailand, and won the bid for goods supply projects of 61 dust collectors in 5,000t/d cement production lines in Russia, while successfully entering into the markets of Europe and the US upon successful sales of flat catalyst to South Korea, Taiwan and other regions, gaining remarkable achievement in the international business.

In 2018, the Company continued to reinforce technological innovation, accumulatively obtaining 1,053 granted patents, of which 100 innovation patents, completed chief editing 1 international standard and 3 national standards, and participated in editing of 16 international, national and industrial standards. The Company currently has one academician and expert workstation, three post-doctoral scientific research workstations, two provincial level enterprise technology centres and one catalyst review centre recognized by China National Accreditation Service for Conformity Assessment. Key Technology for High-Efficiency Utilization in Full Operation of Exhaust Gas Residual Heat from Integrated Air Heaters (聯合暖風器的煙氣餘熱全工況高效利用關鍵技術) which was under independent research and development by the Company has been successfully applied to Ningde power plant, bringing RMB20 million economic benefits to the Company, achieving international and advanced level as appraised by China Electricity Council ("CEC"). "Intelligent Control Technology of SCR System for Coal-fired Power Plants (燃煤電站SCR系統智能化控制技術) was applied to 18 units in Wushashan and Huangdao, and the average denitrification efficiency rate upon renovation improved 3.57%, in which the Company obtained more than RMB30 million economic benefits, achieving international and advanced level as appraised by CEC. Low-cost desulfurization sewage zero emission technology may effectively reduce operation cost, and improve the effluent quality, achieving international and advanced level as appraised by CEC. During the year, the Company obtained 13 technology awards, including China Industry Award (中國工業大獎表彰獎) and the Advanced Collective Award of Chinese Technology Market Golden Bridge Award (中國技術市場金橋獎先進集體獎). The "Research, Production and Application of National Standards of Denitrification Catalyst and IEEE Standards" (脫硝催化劑國家標準及IEEE標準的研製與應用) project received the first prize of 2018 China Power Innovation Award (Standard Category) (2018年度中國電力創新獎標準類一等獎), while the "Development and Application of Whole-life Cycle Management Technology of Denitrification Catalysts" (脫硝催化劑全生命週期管理技術開發與應用) received the Chinese Technology Market Golden Bridge Award.

## Message From the General Manager (Continued)

In 2018, the Company continued to push forward green development by proactively performing its social responsibility and relentlessly improve its professional management, making active contribution to establishment of ecological civilization in the State. The concession installed capacity of desulfurization of the Company amounted to 39.23 million kW, and the installed capacity of denitrification amounted to 31.14 million kW, all of which achieved standard emission. The Company accumulatively completed renovation of frequency variation for 37 slurry circulation pumps, renovation of permanent-magnet machineries for 18 slurry circulation pumps and renovation of 10 ceramic pumps throughout the year, with the maximum energy conservation rate of 24.1% for each machine. The Company completed the optimization of ammonia injection and intelligent control in Lvsigang and Wushashan projects, with average reduction of ammonia injection volume of 10%, reflecting remarkable resolutions of energy conservation. Accumulative production of desulfurization catalysts throughout the year amounted to 37,400 m<sup>3</sup>.

In 2019, strongly supported by national policies, the energy conservation and environmental protection industry will have a promising prospect ahead. The statement of “lucid waters and lush mountains are invaluable assets” has become a basic regulation for developing ecological civilization and beautiful China. The Company will, based on the overall requirement of “doing the best and becoming the best”, adhere to implement the philosophy of new development, adhere to the development direction of marketization, professionalism, internationalization, legalization and informatization to strengthen internal management and control, improve the level of professional service, reinforce capability of core competitiveness, unwaveringly go global by utilizing the opportunity of “Double Hundred Actions” of reform to develop marketized system and mechanism, and comprehensively promote high quality development, in order to establish the Company to become the top-notch energy conservation and environmental protection enterprise in the world.

We hereby express our sincere gratitude to the strong support of all Shareholders and friends from the society. Under the leadership of the Board and the support of China Datang, our Controlling Shareholder, we are confident and determined to bring better rewards to all Shareholders.

*General Manager*  
**HOU Guoli**



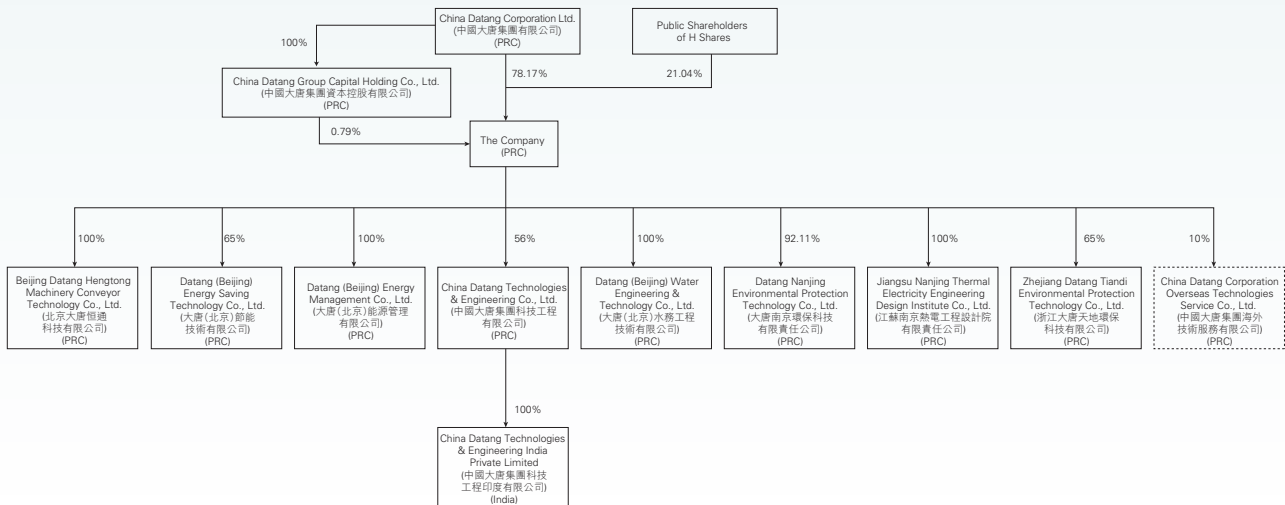
22 March 2019

# Company Profile

The predecessor of the Company (stock code: 1272) was China Datang Corporation Group Environment Technology Co., Ltd. (中國大唐集團環境技術有限公司), which was established in July 2011. Since the establishment of the Company and after several years of rapid development and a series of business restructuring, the Company has been successfully listed on the Main Board of the Stock Exchange since 15 November 2016. As at 31 December 2018, the Company had a total of 2,967,542,000 issued Shares, among which the Controlling Shareholder, China Datang, holds, directly and indirectly, an aggregate of approximately 78.96%.

The Group is the sole platform for the development of environmental protection and energy conservation business under China Datang Corporation, one of the 4 major state wholly-owned power generation groups in the PRC. The principal business of the Group includes environmental protection facility concession operation, denitrification catalysts, environmental protection facilities engineering, water treatment business, energy conservation business and renewable energy engineering business.

As at 31 December 2018, the Company's major corporate structure was as follows:





# Financial and Operation Highlights

- For the year ended 31 December 2018, the revenue of the Group amounted to RMB8,588.07 million, representing an increase of 7.02% as compared with last year.
- For the year ended 31 December 2018, the gross profit of the Group amounted to RMB1,349.96 million and the gross profit margin of the Group amounted to 15.72%, representing a decrease of 15.61% and 4.22 percentage points as compared with last year, respectively.
- For the year ended 31 December 2018, the total comprehensive income attributable to owners of the parent amounted to RMB768.18 million, representing a decrease of 12.15% as compared with last year.
- For the year ended 31 December 2018, the Group continued to be the largest desulfurization and denitrification concession operator and the largest denitrification catalysts manufacturer nationwide.
- In 2018, the Group was listed in the “Double Hundred Actions” of reform of state-owned enterprises.

## Financial Highlights

The following table sets forth the Company's consolidated statements of profit or loss and other comprehensive income for the periods indicated:

	Year ended 31 December				
	2018 RMB'000	2017 RMB'000	2016 RMB'000	2015 RMB'000	2014 RMB'000
<b>CONTINUING OPERATIONS</b>					
Revenue	<b>8,588,070</b>	8,024,494	8,156,469	8,609,588	6,499,127
Cost of sales	<b>(7,238,113)</b>	(6,424,764)	(6,483,157)	(7,229,534)	(5,436,681)
Gross profit	<b>1,349,957</b>	1,599,730	1,673,312	1,380,054	1,062,446
Selling and distribution expenses	<b>(42,237)</b>	(46,036)	(47,018)	(38,252)	(38,101)
Administrative expenses	<b>(279,419)</b>	(293,094)	(282,051)	(289,947)	(235,769)
Other income and gains	<b>169,414</b>	429	113,745	71,013	15,928
Finance costs	<b>(200,518)</b>	(182,831)	(193,065)	(230,022)	(208,545)
Impairment losses on financial and contract assets	<b>(59,775)</b>	–	–	–	–
<b>Profit before tax from continuing operations</b>	<b>937,422</b>	1,078,198	1,264,923	892,846	595,959
Income tax expenses	<b>(154,199)</b>	(163,286)	(180,193)	(142,537)	(101,154)
<b>PROFIT FOR THE YEAR FROM CONTINUING OPERATIONS</b>	<b>783,223</b>	914,912	1,084,730	750,309	494,805
<b>DISCONTINUED OPERATION</b>					
Profit for the year from a discontinued operation <sup>(1)</sup>	–	–	–	–	42,670
<b>PROFIT FOR THE YEAR</b>	<b>783,223</b>	914,912	1,084,730	750,309	537,475
<b>OTHER COMPREHENSIVE INCOME FOR THE YEAR, NET OF TAX</b>					
	<b>758</b>	(930)	2,104	(23)	2,182
<b>TOTAL COMPREHENSIVE INCOME FOR THE YEAR</b>	<b>783,981</b>	913,982	1,086,834	750,286	539,657

## Financial Highlights (Continued)

	Year ended 31 December				
	2018 RMB'000	2017 RMB'000	2016 RMB'000	2015 RMB'000	2014 RMB'000
<b>Profit Attributable to:</b>					
Owners of the parent	<b>766,736</b>	874,924	1,020,564	705,753	535,210
Non-controlling interests	<b>16,487</b>	39,988	64,166	44,556	2,265
	<b>783,223</b>	914,912	1,084,730	750,309	537,475
<b>Total comprehensive income attributable to:</b>					
Owners of the parent	<b>768,183</b>	874,403	1,021,657	705,741	536,738
Non-controlling interests	<b>15,798</b>	39,579	65,177	44,545	2,919
	<b>783,981</b>	913,982	1,086,834	750,286	539,657

Note:

- (1) The profit from a discontinued operation represents the operating results of China Creative Wind Energy Co., Ltd.

## Financial Highlights (Continued)

The following table sets forth selected items from our consolidated statements of financial position as at the dates indicated:

	31 December				
	2018 <i>RMB'000</i>	2017 <i>RMB'000</i>	2016 <i>RMB'000</i>	2015 <i>RMB'000</i>	2014 <i>RMB'000</i>
<b>ASSETS</b>					
Total current assets	<b>12,172,973</b>	10,309,222	11,016,628	7,893,164	7,019,115
Total non-current assets	<b>8,287,008</b>	7,852,230	6,918,912	6,085,663	3,326,049
<b>TOTAL ASSETS</b>	<b>20,459,981</b>	18,161,452	17,935,540	13,978,827	10,345,164
<b>LIABILITIES AND EQUITY</b>					
Total current liabilities	<b>10,195,621</b>	8,181,413	8,022,970	6,962,036	6,365,489
Total non-current liabilities	<b>2,945,038</b>	3,053,678	3,497,216	3,389,720	2,292,440
Total equity	<b>7,319,322</b>	6,926,361	6,415,354	3,627,071	1,687,235
<b>TOTAL LIABILITIES AND EQUITY</b>	<b>20,459,981</b>	18,161,452	17,935,540	13,978,827	10,345,164

The following table sets forth a summary of our consolidated statements of cash flows for the periods indicated:

	Year ended 31 December				
	2018 <i>RMB'000</i>	2017 <i>RMB'000</i>	2016 <i>RMB'000</i>	2015 <i>RMB'000</i>	2014 <i>RMB'000</i>
Net cash flows from operating activities	<b>487,782</b>	873,831	1,303,594	1,266,530	944,421
Net cash flows used in investing activities	<b>(839,589)</b>	(1,145,537)	(1,575,855)	(2,804,435)	(869,264)
Net cash flows from/(used in) financing activities	<b>370,295</b>	(979,554)	1,812,562	1,907,341	289,227

# Management Discussion and Analysis

As an environmental protection and energy conservation solution provider for coal-fired power generation enterprises, the principal business of the Group includes environmental protection facility concession operation, denitrification catalysts, environmental protection facilities engineering, water treatment business, energy conservation business and renewable energy engineering business. Customers of the Group spread over 30 provinces, autonomous regions and municipal cities in the PRC as well as eleven countries.

## I. INDUSTRY OVERVIEW

In March 2019, Premier Li Keqiang recognized the results obtained by the PRC in the scope of environmental protection in 2018 in the 2019 Government Work Report, and meanwhile, he expressed the prospect of key tasks of environmental protection in 2019, and proposed stricter requests on pollution prevention and treatment of the atmosphere, water, soil, solid waste in cities and other aspects.

Looking back 2018, the Chinese government, driven by the initiative of building “Beautiful China” and faced with risks in the backdrop that the economic development enters “new normal” stage, rolled out in succession a series of new regulations and policies tailored for current development objectives of the environmental industry and air pollution control industry, bringing the environmental industry and air pollution control industry onto the fast track of targeted and scientific control. The air pollution control industry has evolved from coal-fired power air pollutant control to deeper and wider development of non-electric air pollutant control segments. Generally, the value of the PRC’s environmental and energy conservation industry increased from RMB3.4 trillion in 2013 to approximately RMB6.5 trillion in 2018, maintaining a CAGR of approximately 14% and remaining one of the sectors with rapid development.

To review the overall performance of air pollution control industry in 2018, the following highlights and industry trends are worth mentioning:

- 1) ***The coal-fired power segment steadily promoted the ultra-low emission, and the utilization hours of thermal power stabilized and rallied, which was favorable to flue gas desulfurization and denitrification concession operations of coal-fired power plants.*** As of the end of 2018, the government had approximately 810,000MW of coal-fired capacity that met ultra-low emission standards, which accounted for 80% of the total coal-fired installed capacity; cumulative energy conservation upgrade was 650,000MW, and the overall objective for coal-fired ultra-low emission and energy conservation upgrade regarding the “13th Five-Year Plan” was realized two years ahead of schedule. Therefore, the PRC has built the world’s largest clean coal-fired power generation system. In 2018, the PRC had 4.9 trillion kWh of thermal power capacity, representing a year-on-year growth of 7.3% or 2.1 percentage points and the fastest growth since 2012. The average utilization hours of thermal power generation units reached 4,361 hours, representing a year-on-year improvement of 143 hours and the best level since 2015; the utilization hours of thermal power generation units recorded improvement for two consecutive years. The strict control on new coal-fired power capacity and the improvement of utilization hours of existing equipment created a favorable environment for desulfurization and denitrification concession operations of coal-fired power plants.

## Management Discussion and Analysis (Continued)

- 2) ***Making China's Skies Blue Again became the policy guideline for the PRC's air pollution control industry over the next three years.*** At the end of June 2018, the State Council formally announced the Three-Year Plan for Making China's Skies Blue Again (the "**Three-Year Plan**"), which launched air pollution control initiatives in three key regions, namely Beijing-Tianjin-Hebei region and its surrounding area, Yangtze River Delta and Fen-Wei Plain. 2019 Government Work Report announced that we shall consolidate the results of keeping our skies blue. In 2019, the emission of sulphur dioxide and nitrogen oxide shall decrease by 3%. PM2.5 concentrations continue to fall in key regions. It embarked on a new round of three-year deployment and arrangement for deepening air pollution control and aimed to further expand the width, depth and intensity of air pollution control.
- 3) ***Steel ultra-low emission marked the beginning of non-electric flue gas control, indicating the air pollutant control industry realized deeper and wider development.*** On 26 April 2018, Hebei Province, one of large steel producers in the PRC, issued "Ultra-low Emission Standards on Air Pollutants of Steel Industry (Consultation Paper)" (《鋼鐵工業大氣污染物超低排放標準(徵求意見稿)》). Flue gas emission standards on sintering and pelletizing included 10mg/m<sup>3</sup> for particulate matter, 35mg/m<sup>3</sup> for sulfur dioxide and 50mg/m<sup>3</sup> for nitrogen oxide. Existing enterprises shall apply such standards as from 1 January 2020, and new enterprises shall adopt such standards as from the effective date. The Ministry of Ecology and Environment issued "Work Plan for Ultra-low Emission Upgrade of Steel Enterprises (Consultation Paper)" (《鋼鐵企業超低排放改造工作方案(徵求意見稿)》) (the "**Work Plan**") and solicited opinions from relevant departments in this regard. Initial targets of the Work Plan included: all of new steel projects (including relocation projects) should meet the ultra-low emission standards. Steel enterprises in the three key air pollution control regions of Beijing-Tianjin-Hebei region and its surrounding areas, Yangtze River Delta and Fen-Wei Plain which are qualified for upgrade should basically accomplish ultra-low emission upgrade by the end of October 2020. Pearl River Delta, Chengdu-Chongqing region, central Liaoning, Wuhan and its surrounding areas, Changsha-Zhuzhou-Xiangtan region and Urumchi-Changji should accomplish the upgrade by the end of 2022. Steel enterprises across the country which are qualified for upgrade should accomplish ultra-low emission upgrade by the end of 2025. Based on the targets and the timetable, the ultra-low emission upgrade of steel industry will lead to greater market potential, and demands for air pollution control equipment and engineering services are expected to last for seven to eight years. The ultra-low emission upgrade of steel industry will create a market value of over RMB80 billion.
- 4) ***Detailed rules about standards on air pollutant control industry were issued, bringing the industry onto the fast track of targeted and scientific control.*** Standardization Administration of the PRC issued "Flue Gas DeNox Catalyst Regeneration Technical Criterion" (GB/T 35209-2017) (《煙氣脫硝催化劑再生技術規範》) in 2018, with effect from 1 May 2018. The Catalogue of Key Industries under Intellectual Property Support (2018) (《知識產權重點支持產業目錄(2018年本)》) (the "**Catalogue**") issued by National Intellectual Property Administration listed ten key industries including the environmental industry, and segments of air pollution control, such as desulfurization, denitrification, efficient dust removal, control of volatile organic compounds and air pollution monitoring, were all listed in the Catalogue. In the Notice on Recommending Advanced Air Pollution Control Technologies (《關於推薦先進大氣污染防治技術的通知》), the Ministry of Ecology and Environment stated that the recommendation soliciting activity in respect of air pollution control technologies for seven major fields was aimed to better apply advanced technologies in air pollution control. Recommended fields included industrial flue gas purification and coordinated pollutant control technologies for the non-electric industry; pollution control technologies for

## Management Discussion and Analysis (Continued)

key industries subject to volatile organic compounds (VOCs) control; coordinated pollutant control technologies to treat flue gas produced by coal-fired power generation units and industrial boilers, pollution control technologies for oil-fired and gas-fired industrial boilers; diesel vehicle and ship exhaust treatment technologies; and purification technologies to treat flue gas produced from domestic garbage and hazardous waste incineration. In November 2018, the Ministry of Ecology and Environment announced the dust fall monitoring results of “2+26” cities for October 2018, which was the first publication of dust fall monitoring information. With effect from 2019, the three key air pollution control regions of Beijing-Tianjin-Hebei region and its surrounding areas, Yangtze River Delta and Fen-Wei Plain will publish dust fall monitoring results every month. In the future, dust fall may probably be included into air pollution control assessment indicators, which is subject to relevant standard improvement.

Based on the overview of the PRC’s air pollution control industry in 2018 as stated above, it is expected that ultra-low emission of coal-fired power plants will enter the “new normal” stage as coal-fired power plants’ existing and future demands for air pollution control projects continue to decrease. In the next few years, the air pollution control industry will usher in another round of steady development by following the timetable of Three-Year Plan. In addition to promotion of ultra-low emission upgrade of coal-fired power generation units, air pollution control in non-electric industries including steel, coking, cement and chemical will witness further development, and air pollution control standards for each segment are expected to be further promoted in the next few years.

### II. BUSINESS OVERVIEW

In 2018, the Group recorded steady development in each business segment and maintained the leading position in business segments of environmental protection facilities concession operation and denitrification catalysts. According to Frost & Sullivan report, based on the cumulative installed capacity in operation as of the end of 2018, the Group remained as the PRC’s largest flue gas desulfurization and denitrification concession operator.

Meanwhile, based on the total output of denitrification catalysts in 2018, the Group remained as the PRC’s largest producer of denitrification catalysts in the segment of denitrification catalysts.

In addition, the Group achieved remarkable development in non-electric environmental protection facilities engineering and thermal power engineering EPC project, signing contracts for 4 non-electric environmental protection facilities engineering projects and one thermal power engineering EPC project in 2018.

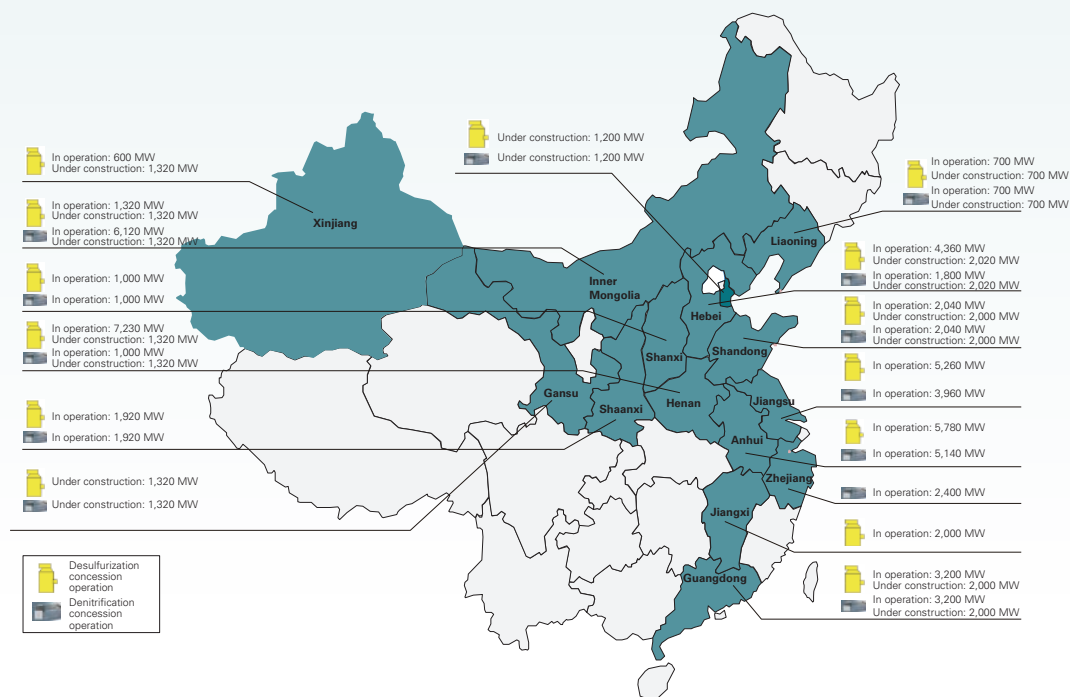
While consolidating its leading position in the environmental protection field of thermal power segment in 2018, the Group actively developed environmental protection businesses in steel, cement, metallurgy and other non-electric fields to expand its business scope and influence.

# Management Discussion and Analysis (Continued)

## 1. Environmental Protection and Energy Conservation Solution Business

### 1.1. Environmental protection facility concession operation business

The Group's environmental protection facility concession operation business covers desulfurization and denitrification concession operations and its major assets are located along east coast and in the areas with relatively robust economic development and strong demands for electricity. According to the statistics from CEC, in terms of the cumulative contracted capacity by the end of 2018, the Group continued to be the largest flue gas desulfurization and denitrification concession operator nationwide. The following map shows the geographical layout and cumulative capacity of the Group's concession operation as at 31 December 2018:



By 31 December 2018, the cumulative installed capacity in operation for desulfurization concession operations of the Group reached 36,610MW and the cumulative installed capacity for desulfurization concession operation projects under construction reached 12,000MW. The cumulative installed capacity in operation for denitrification concession operations reached 30,480MW and the cumulative installed capacity for denitrification concession operation projects under construction reached 10,680MW. The Group had one desulfurization entrusted operation project with an installed capacity of 1,960MW.



## Management Discussion and Analysis (Continued)

The table below sets forth the status of the Group's desulfurization and denitrification concession operation projects in operation as at 31 December 2018:

Project location	Project name	Category of concession operation	Installed capacity (MW)
Guangdong	Chaozhou	Desulfurization and denitrification	3,200
Jiangsu	Lvsigang	Desulfurization and denitrification	2,640
	Nanjing	Desulfurization and denitrification	1,320
	Xutang	Desulfurization	1,300
Shandong	Huangdao	Desulfurization and denitrification	1,340
	Binzhou	Desulfurization and denitrification	700
Zhejiang	Wushashan	Denitrification	2,400
Henan	Xuchang	Desulfurization	2,020
	Sanmenxia	Desulfurization and denitrification	2,900/1,000
	Anyang	Desulfurization	1,270
	Shouyangshan	Desulfurization	1,040
Hebei	Wangtan	Desulfurization and denitrification	1,200
	Zhangjiakou	Desulfurization and denitrification	600
	Thermal Power		
	Zhangjiakou	Desulfurization	2,560
Tianjin	Jixian	Desulfurization and denitrification	1,200
Anhui	Luohe	Desulfurization and denitrification	2,500
	Ma'anshan	Desulfurization and denitrification	1,320
	Hushan	Desulfurization and denitrification	1,320
	Tianjia'an	Desulfurization	640
Shaanxi	Binchang	Desulfurization and denitrification	1,260
	Baoji	Desulfurization and denitrification	660
Inner Mongolia	Tuoketuo	Desulfurization and denitrification	1,320/6,120
Jiangxi	Fuzhou	Desulfurization	2,000
Shanxi	Shentou	Desulfurization and denitrification	1,000
Xinjiang	Hutubi	Desulfurization	600
Liaoning	Shendong	Desulfurization and denitrification	700

## Management Discussion and Analysis (Continued)

The table below sets forth the status of the Group's desulfurization and denitrification concession operation projects under construction as at 31 December 2018:

<b>Project location</b>	<b>Project name</b>	<b>Category of concession operation</b>	<b>Installed capacity (MW)</b>
Guangdong	Leizhou	Desulfurization and denitrification	2,000
Henan	Gongyi	Desulfurization and denitrification	1,320
Hebei	Yu County	Desulfurization and denitrification	1,320
	Tangshan Beijiao	Desulfurization and denitrification	700
Liaoning	Huludao	Desulfurization and denitrification	700
Inner Mongolia	Xilinhot	Desulfurization and denitrification	1,320
Xinjiang	Wucaiwán	Desulfurization	1,320
Ningxia	Pingluo	Desulfurization and denitrification	1,320
Shandong	Dongying	Desulfurization and denitrification	2,000

In 2018, the Group achieved a material breakthrough in operating market of environmental protection facilities outside the system of China Datang Corporation. The Group signed contracts for daily maintenance projects for environmental protection facilities of two coal-fired power plants of State Power Investment Corporation Limited, and signed a contract for the maintenance project for desulfurization facilities of one coal-fired power plant of China Huaneng Group Co., Ltd.

### 1.2 Denitrification catalysts business

In 2018, both the production volume and the sales volume of the Group's denitrification catalysts business remained stable. According to the statistics from CEC, the Group continues to rank the first in the PRC in terms of the total production volume in 2018.

The following table sets forth the breakdown of the key information of the Group's denitrification catalysts business in 2018:

<b>Production volume</b>	<b>Sales volume</b>	<b>Delivery volume</b>	<b>Delivery volume to customers other than China Datang Corporation</b>
37,418.0	37,355.9	39,136.8	16,706.7

*(Unit: m<sup>3</sup>)*

In 2018, the Group sold 13,980.3m<sup>3</sup> of catalyst to customers other than China Datang Corporation and entered into 73 contracts, among which, 13 contracts were entered with overseas customers and 4,885.8m<sup>3</sup> of catalyst was sold to them, while 34 contracts were entered with customers from non-electric industry such as glass and alumina sectors and 906.9m<sup>3</sup> of catalyst was sold to them. Meanwhile, the Group has made steady progress in the disposal of waste catalysts with a total amount of 4,295.1m<sup>3</sup> of waste catalysts being disposed.

## Management Discussion and Analysis (Continued)

### 1.3 Environmental protection facilities engineering business

In 2018, the Group continued to carry out its environmental protection facilities engineering business, including desulfurization, denitrification, dust removal, ultra-low emission, and industrial site dust management, actively develop the environmental market of non-electric industry such as petroleum, coking, steel, and cement, and has achieved preliminary results.

In 2018, the Group entered into 4 contracts for environmental protection construction projects in non-electric industry with an aggregate amount of RMB116.5 million, among which, there was a contract for the dust management project in the industrial site of Huaxin Cement Co., Ltd., with an aggregate contract amount of RMB31.7 million.

The following table sets forth the breakdown of the environmental protection facilities engineering business of the Group as at 31 December 2018:

Projects	Bid winning project in 2018		Projects put into operation in 2018		Projects under construction	
	Number	Capacity (MW)	Number	Capacity (MW)	Number	Capacity (MW)
Desulfurization	11	9,610	11	8,210	9	9,960
Denitrification	8	8,740	4	3,300	12	15,380
Dust removal	4	2,640	5	2,660	15	17,260
Ultra-low emission	7	5,860	10	8,300	5	6,440
Industrial site dust management	9	11,590	8	6,100	33	60,599

### 1.4 Water treatment business

In 2018, the water treatment engineering business of the Group maintained a steady development. The Group entered into contracts for 24 water treatment engineering projects in total throughout the year with an aggregate amount of RMB564.3 million, among which, there was wastewater discharge standard transformation project in whole plant of Tianjin Datang International Panshan Power Generation Company Limited. It became another breakthrough after retrofitting project for waste water zero discharge in whole plant of Shenhua Inner Mongolia Guohua Zhunge'er Power Generation Co., Ltd.

In 2018, the Group entered into 17 contracts outside the system of China Datang Corporation with an aggregate amount of RMB245.3 million, among which, six contracts were entered with customers in non-electric industry with a total amount of RMB87.3 million. The Group successfully entered into the contract for the 10,000m<sup>3</sup>/d wastewater comprehensive recycling project of Shandong Tiexiong Xinsha Energy Co. Ltd. (山東鐵雄新沙能源有限公司), which is the first wastewater recycling project of the Group in coking industry. Meanwhile, the Group developed steadily in soil restoration and successfully entered two contracts for soil restoration projects with a cumulative contract amount of RMB21.7 million.

# Management Discussion and Analysis (Continued)

## **1.5 Energy conservation business**

In 2018, the Group entered into 3 contracts for new energy conservation facilities engineering projects with a total contract amount of RMB58.7 million. The two flexible peak adjustment pilot projects of the National Energy Administration undertaken by the Group were successfully put into operation. In respect of energy management contract business, as of 31 December 2018, the Group successfully completed implementation of 6 investment projects, of which 5 projects have obtained stable income.

## **2. Renewable Energy Engineering Business**

The Group newly entered 18 contracts for renewable energy engineering projects, among which, 3 wind power plant site engineering projects with installed capacity of 380MW and 15 photovoltaic engineering projects with installed capacity of 614MW.

As at the end of December 2018, the cumulative installed capacity in operation for wind power plant site of the Group reached 1,048MW and cumulative installed capacity in construction reached 630MW, while the cumulative installed capacity in operation for photovoltaic engineering projects of the Group reached 951MW and cumulative installed capacity in construction reached 140MW.

## **3. Thermal Power Engineering Business**

In 2018, the Group entered into contract for one new thermal power engineering project with an installed capacity of 700MW and a contract value of RMB219.4 million. Such project, as a livelihood construction, is able to effectively improve the local heat supply condition, and significantly boost the local environment quality.

## **4. Other Businesses**

The Group continued to carry out fiberglass chimney anti-corrosion projects and air-cooling system engineering general contracting projects in 2018.

## **5. Overseas Business**

In 2018, the Group has cumulatively entered into 3 overseas projects, involving a contract amount of RMB61.3 million, of which the Group successfully entered into the Dust Removal Project for Cement Production Line in Sibay, Russia, involving an amount of RMB51.9 million.

As at 31 December 2018, the Group had two overseas projects under enforcement. Among which, the desulfurization project for No. 2 unit of Cuddalore in India ran steadily after officially put into operation and was properly functioned; the preliminary design and equipment procurement of the 24MW biomass project have been completed.

According to the market research at the early stage, the Group preliminary determined the development strategies focusing on the Southeast Asia market, actively tapped into the environmental protection markets in India, Thailand, Vietnam, Indonesia and other countries, and strengthened reserves in projects and resources to lay a solid foundation for the expansion of subsequent market.

# Management Discussion and Analysis (Continued)

## 6. Research and Development

In 2018, the Group continued to enhance its cultivation of outstanding science and technology innovation achievement. The Group built up its core competitive strength and achieved outstanding results through continuous technological innovation and received a total of 13 industrial level technological awards, including one first prize of China Power Innovation Award (Standard Category), the Ninth China Technology Market Golden Bridge Award. The Group was also awarded the Advanced Collective of China Technology Market Golden Bridge Award.

In 2018, the Group continued to focus on its proprietary development and innovation, commit substantial resources to research and development and persist in promoting the commercialization of technological achievements. The three proprietary technological achievements of the Group, namely “Development and Application of Key Technology for High-Efficiency Utilization in Full Operation of Exhaust Gas Residual Heat from Integrated Air Heaters (聯合暖風器的煙氣餘熱全工況高效利用關鍵技術開發與應用)”, “Intelligent Control Technology and Application of SCR System for Coal-fired Power Plants (燃煤電站SCR系統智能化控制技術及應用)” and “Zero-emission technology for low-cost desulfurization wastewater based on SAP/NF/MD (基於SAP/NF/MD的低成本脫硫廢水零排放技術)”, have passed the technical assessment of CEC, and the overall technological standard reached the international advanced level, among which, the “Intelligent Control Technology and Application of SCR System for Coal-fired Power Plants” has been applied to three power plants and 18 coal-fired generating units, which have achieved significant economic benefits.

As at 31 December 2018, the Group had 1,053 patents in aggregate, including 100 invention patents, and obtained 46 software copyrights in aggregate.

As at 31 December 2018, the Group had a total of 35 technical standards under preparation, including one international standard and six national and industry standards led by the Group. The Group formulated and issued 20 technical standards, including one international standard and three national standards.

# Management Discussion and Analysis (Continued)

## III. MANAGEMENT DISCUSSION AND ANALYSIS ON FINANCIAL POSITION AND OPERATING RESULTS

There are inter-segment sales among the Group's segments and sub-segments, and accordingly the Group records intra-segment elimination and inter-segment elimination among these segments/sub-segments for the relevant revenue and cost of sales. In this annual report, unless otherwise specified herein, (i) all discussion about total revenue, total gross profit and overall gross profit margin are based on the amounts after all intra- and inter-segment elimination among the segments/sub-segments (being the figures reflected in our consolidated statement of profit or loss and other comprehensive income), and (ii) all discussion about the revenue, gross profit and gross profit margin of business segments and sub-segments are based on the amounts before any intra- or inter-segment elimination of such segment or sub-segment.

### 1. Overview

The Group's revenue increased by 7.0% from RMB8,024.5 million in 2017 to RMB8,588.1 million in 2018. The Group's profit for 2018 amounted to RMB783.2 million, representing a decrease of RMB131.7 million as compared with RMB914.9 million in 2017. Profit attributable to owners of the parent amounted to RMB766.7 million. As at 31 December 2018, the Group's cash and cash equivalents increased by 0.7% to RMB1,677.7 million as compared with RMB1,666.1 million as at 31 December 2017. The Group's total assets increased by 12.7% to RMB20,460.0 million as at 31 December 2018 as compared with RMB18,161.5 million as at 31 December 2017. The Group's total liabilities increased by 17.0% to RMB13,140.7 million as at 31 December 2018 as compared with RMB11,235.1 million as at 31 December 2017. The Group's return on total assets for 2018 was 4.1%, as compared with 5.1% in 2017.

### 2. Results of Operations

#### 2.1. Revenue

The Group's revenue increased by 7.0% to RMB8,588.1 million in 2018 as compared with RMB8,024.5 million in 2017, primarily due to the Group undertook the thermal power engineering business in 2018, whilst actively pursuing market expansion in the non-electrical field, resulting in an increase in revenue.

#### 2.2. Cost of sales

The Group's cost of sales increased by 12.7% to RMB7,238.1 million in 2018 as compared with RMB6,424.8 million in 2017. The level of increase in the Group's cost of sales was slightly higher than the increase in total revenue, which was mainly affected by the increase in prices of raw materials.

#### 2.3. Selling and distribution expenses

The Group's selling and distribution remained stable with a slight decrease of 8.3% to RMB42.2 million in 2018 as compared with RMB46.0 million in 2017.

## Management Discussion and Analysis (Continued)

### **2.4. Administrative expenses**

The Group's administrative expenses remained stable with a slight decrease of 4.7% to RMB279.4 million in 2018 as compared with RMB293.1 million in 2017.

### **2.5. Other income and gains**

The Group's other income and gains increased significantly to RMB169.4 million in 2018 as compared with RMB0.4 million in 2017. This was mainly due to the RMB102.9 million net increase of exchange gains for the year as compared with that last year, which was driven by the exchange rate of RMB against Hong Kong dollar.

### **2.6. Finance costs**

The Group's finance costs increased by 9.7% to RMB200.5 million in 2018 as compared with RMB182.8 million in 2017, primarily due to an increase in total short-term borrowings as compared with last year.

### **2.7. Profit before tax**

As a result of the foregoing factors, the Group's profit before tax decreased by 13.1% to RMB937.4 million in 2018 as compared with RMB1,078.2 million in 2017.

### **2.8. Income tax expense**

The Group's income tax expense was RMB154.2 million in 2018, representing a decrease of 5.6% from RMB163.3 million in 2017. The reason that range of decrease in income tax expense of the Group was slightly lower than the range of decrease in profit before tax was mainly due to the change of tax preferential policy the subsidiaries enjoy as compared to that of last year.

### **2.9. Profit for the year**

The Group's profit for the year decreased by RMB131.7 million from RMB914.9 million in 2017 to RMB783.2 million in 2018. For the year ended 31 December 2018, the Group's profit for the year as a percentage of its total revenue decreased to 9.1% as compared with 11.4% in 2017.

### **2.10. Profit attributable to owners of the parent**

The profit attributable to owners of the parent decreased by RMB108.2 million to RMB766.7 million in 2018 as compared with RMB874.9 million in 2017.

### **2.11. Profit attributable to non-controlling interests**

The profit attributable to non-controlling interests of the Group decreased by 58.8% to RMB16.5 million in 2018 as compared with RMB40.0 million in 2017.

## Management Discussion and Analysis (Continued)

### 3. Results on Business Segments

The following table sets forth a breakdown of the Group's revenue by segment/sub-segment and each segment/sub-segment as a percentage of total revenue for the years ended 31 December 2018 and 2017, as well as the percentage of change:

	For the year ended 31 December				
	2018		2017		Change %
	Revenue <i>RMB'000</i>	Percentage of total revenue before elimination <sup>(1)</sup> %	Revenue <i>RMB'000</i>	Percentage of total revenue before elimination <sup>(1)</sup> %	
<b>Environmental Protection and Energy</b>					
<b>Conservation Solutions:</b>					
Environmental protection facilities concession operation	3,207,649	36.4	3,189,231	38.5	0.6
Denitrification catalysts	475,814	5.4	518,430	6.3	(8.2)
Environmental protection facilities engineering	2,339,520	26.5	1,838,593	22.2	27.2
Water treatment business	329,263	3.7	337,520	4.1	(2.4)
Energy conservation business	290,907	3.3	136,338	1.6	113.4
Total revenue of environmental protection and energy conservation solutions before elimination	6,643,153	75.3	6,020,112	72.7	10.3
Intra-segment elimination <sup>(2)</sup>	(148,388)		(218,862)		
Total revenue of environmental protection and energy conservation solutions after intra- segment elimination	6,494,765		5,801,250		12.0
Inter-segment elimination <sup>(3)</sup>	(14,895)		(14,722)		
<b>External revenue of environmental protection and energy conservation solutions</b>	6,479,870		5,786,528		12.0
<b>Renewable Energy Engineering:</b>					
Total revenue of renewable energy engineering business	1,284,967	14.6	1,824,955	22.0	(29.6)
Inter-segment elimination	–		–		
<b>External revenue of renewable energy engineering business</b>	1,284,967		1,824,955		(29.6)
<b>Thermal power engineering:</b>					
Total revenue of thermal power engineering	494,237	5.6	–		
Inter-segment elimination	–		–		



## Management Discussion and Analysis (Continued)

	For the year ended 31 December				
	2018		2017		Change %
	Revenue RMB'000	Percentage of total revenue before elimination <sup>(1)</sup> %	Revenue RMB'000	Percentage of total revenue before elimination <sup>(1)</sup> %	
<b>External revenue of thermal power engineering</b>	<b>494,237</b>		-		
<b>Other businesses:</b>					
<b>Total revenue of other businesses</b>	<b>392,990</b>	<b>4.5</b>	435,609	5.3	(9.8)
Inter-segment elimination <sup>(4)</sup>	(63,994)		(22,598)		
<b>External revenue of other businesses</b>	<b>328,996</b>		413,011		(20.3)
<b>Total revenue before elimination<sup>(5)</sup></b>	<b>8,815,347</b>	<b>100</b>	8,280,676	100.0	6.5
Total intra- and inter-segment elimination <sup>(6)</sup>	(227,227)		(256,182)		
<b>Total revenue</b>	<b>8,588,070</b>		8,024,494		7.0

### Notes:

- (1) Represents the revenue of each business segment or sub-segment (before any intra- or inter-segment elimination) as a percentage of the total revenue before any intra- or inter-segment elimination.
- (2) Intra-segment elimination of revenue from sub-segments under environmental protection and energy conservation solutions segment mainly arises from the intra-segment sales between denitrification catalysts sub-segment to denitrification facilities engineering sub-segment and environmental protection facilities concession operation, respectively.
- (3) Inter-segment elimination of revenue from environmental protection and energy conservation solutions segment mainly arises from the inter-segment sales to other business segments made by the sub-segments within environmental protection and energy conservation solutions segment, including the inter-segment sales from denitrification facilities engineering sub-segment to thermal power engineering segment, the inter-segment sales from dust removal facilities engineering sub-segment to thermal power engineering segment, the inter-segment sales from water treatment business sub-segment to thermal power engineering segment and the inter-segment sales from energy conservation business sub-segment to other business segment.
- (4) Inter-segment elimination of revenue from other businesses segment mainly arises from the inter-segment sales between other businesses segment and environmental protection and energy conservation solutions, respectively.
- (5) Represents the aggregate amount of the revenue of all segments/sub-segments before any intra- or inter-segment elimination.
- (6) Represents the aggregate amount of all intra- and inter-segment elimination.

## Management Discussion and Analysis (Continued)

The following table sets forth a breakdown of the Group's gross profit by segment/sub-segment and gross profit margin of each business segment/sub-segment for the years ended 31 December 2018 and 2017, as well as the percentage of change in gross profit:

	For the year ended 31 December				
	2018		2017		Change of gross profit %
	Gross profit <sup>(1)</sup> RMB'000	Gross profit margin <sup>(2)</sup> %	Gross profit <sup>(1)</sup> RMB'000	Gross profit margin <sup>(2)</sup> %	
<b>Environmental Protection and Energy</b>					
<b>Conservation Solutions:</b>					
Environmental protection facilities concession operation	978,797	30.5	1,197,843	37.6	(18.3)
Denitrification catalysts	115,992	24.4	177,667	34.3	(34.7)
Environmental protection facilities engineering	150,966	6.5	153,838	8.4	(1.9)
Water treatment business	30,774	9.3	16,794	5.0	83.2
Energy conservation business	47,147	16.2	16,211	11.9	190.8
<b>Total gross profit of environmental protection and energy conservation solutions</b>	<b>1,323,676</b>	<b>19.9</b>	<b>1,562,353</b>	<b>26.0</b>	<b>(15.3)</b>
<b>Total gross profit of renewable energy engineering business</b>	<b>28,431</b>	<b>2.2</b>	<b>40,995</b>	<b>2.2</b>	<b>(30.6)</b>
<b>Total gross profit of thermal power engineering</b>	<b>27,354</b>	<b>0.4</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Total gross profit of other businesses</b>	<b>(14,498)</b>	<b>(3.7)</b>	<b>62,260</b>	<b>14.3</b>	<b>(123.3)</b>
<b>Total gross profit and overall gross profit margin<sup>(3)</sup></b>	<b>1,349,957</b>	<b>15.7</b>	<b>1,599,730</b>	<b>19.9</b>	<b>(15.6)</b>

Notes:

- (1) Calculated based on the revenue of each segment or sub-segment (before any intra- or inter-segment elimination) minus the cost of sales of such segment or sub-segment (before any intra- or inter-segment elimination).
- (2) Calculated based on the gross profit of each segment or sub-segment calculated according to note (1) divided by the revenue of such segment or sub-segment (before any intra- or inter-segment elimination).
- (3) Total gross profit equals total revenue (being the revenue reflected on our consolidated statement of profit or loss and other comprehensive income) minus total cost of sales (being the cost of sales reflected on our consolidated statement of profit or loss and other comprehensive income). Overall gross profit margin equals total gross profit divided by total revenue.

## Management Discussion and Analysis (Continued)

### 4. Cash Flows

As at 31 December 2018, the Group's cash and cash equivalents increased by 0.7% to RMB1,677.7 million as compared with RMB1,666.1 million as at 31 December 2017.

### 5. Working Capital

As at 31 December 2018, the Group's net current assets decreased by 7.1% to RMB1,977.4 million as compared with RMB2,127.8 million as at 31 December 2017, primarily due to (i) a decrease of 6.0% in the Group's prepayments, deposits and other receivables to RMB888.9 million as at 31 December 2018 as compared with RMB946.1 million as at 31 December 2017; (ii) an increase of 12.0% in the Group's trade and bills payables to RMB6,481.3 million as at 31 December 2018 as compared with RMB5,787.4 million as at 31 December 2017; (iii) an increase of 49.8% in the Group's other payables and accruals to RMB1,663.4 million as at 31 December 2018 as compared with RMB1,110.7 million as at 31 December 2017; and (iv) an increase of 64.0% in the Group's short-term interest-bearing bank borrowings and other loans to RMB2,023.8 million as at 31 December 2018 as compared with RMB1,234.1 million as at 31 December 2017, which was partially offset by an increase of 16.8% in the Group's trade and bills receivables to RMB8,398.5 million as at 31 December 2018 as compared with RMB7,191.8 million as at 31 December 2017.

### 6. Indebtedness

As at 31 December 2018, the Group's borrowings increased by 16.0% to RMB4,929.9 million as compared with RMB4,250.8 million as at 31 December 2017.

### 7. Capital Expenditure

The Group's capital expenditure decreased by 26.7% to RMB937.8 million in 2018 as compared with RMB1,280.0 million in 2017. Capital expenditure mainly comprises costs including acquisition or construction of property, plant and equipment, prepaid land lease payments and intangible assets.

## Management Discussion and Analysis (Continued)

### 8. Financial Ratios

The following tables set forth certain of our financial ratios as at the dates and for the periods indicated:

	As at 31 December	
	2018	2017
Current ratio	<b>119.4%</b>	126.0%
Quick ratio	<b>117.9%</b>	124.5%
Liabilities to assets ratio	<b>64.2%</b>	61.9%
Leverage ratio	<b>44.4%</b>	37.3%

	For the year ended 31 December	
	2018	2017
Return on total assets	<b>4.1%</b>	5.1%
Return on equity	<b>11.0%</b>	13.7%

### 9. Significant Investment

For the year ended 31 December 2018, the Group made no significant investment.

### 10. Material Acquisition and Disposal

For the year ended 31 December 2018, the Group had no material acquisition or disposal.

### 11. Contingent Liabilities

As at 31 December 2018, the Group had no material contingent liabilities.

# Management Discussion and Analysis (Continued)

## IV. RISK FACTORS AND RISK MANAGEMENT

### Risks on environmental protection and energy conservation policies

The Group provides substantially all of its products and services in the PRC, and the development of its business is greatly dependent on the environmental protection policies of the PRC. Environmental protection industry is one of the major industries that benefit from the constant support of the PRC government. The market demand for the Group's environmental protection and energy conservation products and services and the revenue generated therefrom are directly affected by the environmental protection policies of the PRC. However, there is no assurance that such policies will continue to be available to the Group or there will be no adverse change. If there is any adverse change, it may result in a material and adverse effect on the business prospects, results of operations and financial condition of the Group. The management of the Group is of the view that, given the severity of pollution in the PRC, it is unlikely for the PRC government to revise such environmental protection policies to an adverse effect or to withdraw any resources invested in the environmental protection industry. Moreover, the Group, as a trendsetter and leader of the environmental protection and energy conservation for the PRC's electric power industry, has participated in the formulation of various industrial policies and standards, which allows it to catch the latest industry trends and respond in a timely fashion.

### Risks on connected transactions with China Datang Corporation

The Group has been conducting various transactions with China Datang Corporation, and will continue to enter into such transactions in the future. For the year ended 31 December 2018, the total value of products and services provided by the Group to China Datang Corporation (other than concession operations) was approximately RMB3,501.7 million, representing approximately 40.8% of the total revenue of the Group. For the year ended 31 December 2018, the total value of the services provided by the Group to China Datang Corporation under the concession operations (desulfurization and denitrification) was approximately RMB3,207.7 million, representing approximately 37.4% of the total revenue of the Group. The Group has been actively expanding its client base, for example, during 2018, the Group entered into contracts in the amount of RMB3.4 billion with clients other than China Datang Corporation, representing 40.5% of the total contract amount of the Group.

### Liquidity risks

Although the Group had positive operating cash flows for the year ended 31 December 2018, it cannot assure that its operating cash flow for any future period will be positive. The Group's ability to generate adequate cash inflows from operating activities in the future will depend in large part on project schedule and billing arrangement, its ability to collect receivables from its customers in a timely manner and the credit terms it can obtain. If the Group is not able to generate sufficient cash flows from its operations or obtain sufficient financing to support its business operation, the Group's growth prospects may be materially and adversely affected. The Group plans to implement diversified measures to collect receivables in order to improve operating cash flow. In addition, the Group has been proactively seeking finance to support the development and expansion of its business. As at 31 December 2018, the Group had available bank facilities of RMB20 billion.

# Management Discussion and Analysis (Continued)

## Industry risks

The Group's business primarily focuses on the environmental protection and energy conservation for coal-fired power plants, the market demand for its business relies heavily on the growth rate of the coal-fired power generation output in the PRC. In particular, the revenue generated from concession operations will be directly affected by the power generation output of coal-fired power plants. As pollution has become an increasingly severe environmental issue in the PRC, the PRC government has shown considerable concern for the adjustment to the national energy structure and development. Therefore, there can be no assurance that coal-fired power generation output in the PRC will continue to grow at the current pace. If the increase of coal-fired power generation output in the PRC slows down, it may result in a decrease of utilization hours of coal-fired power generation units, or a lower demand for the Group's products and services, which in turn will materially and adversely affect our business prospects, results of operations and financial position. The management of the Group is of the view that, in terms of the power generation portfolio in the PRC, coal-fired power generation still dominates the market. In addition, the vast majority of the Group's concession operations locate in coastal areas or economically developed areas, where the utilization hours of coal-fired power generation are higher than the average level nationwide. The Group plans to actively explore clients in the iron and steel, cement and petro-chemical industries.

## Risks on overseas business

The Group is aggressively developing its overseas business, especially in the Belt and Road Initiative countries, deeply explores Southeast Asia, South Asia and other core market, and focuses on the deployment of India, Thailand, Vietnam and other countries. The Group's global business expansion may be hindered by risks such as: lack of availability of overseas financing, possible difficulties in the management of overseas personnel and business operations, lack of understanding of the local business environment, financial and management system or legal system, volatility in currency exchange rates, cultural differences, changes in political, regulatory or economic environments in the foreign countries or other regions, as well as the risk of barriers. If the Group fails to manage the above risks effectively, its overseas expansion may be hindered, which may in turn result in a material and adverse effect on its business prospects, results of operations and financial condition. The management of the Group is of the view that, the PRC government has been actively establishing friendly diplomatic relations with the Belt and Road Initiative countries and improving the overseas investment atmosphere. The Group has extensive experience in project management in certain countries, for instance India and Thailand, which can serve as examples for its future overseas development. Moreover, the Group has established rather mature risk management and internal control systems to mitigate risks on overseas business to the greatest extent possible.

# Management Discussion and Analysis (Continued)

## V. OUTLOOK ON THE GROUP'S FUTURE DEVELOPMENT

Looking forward to 2019, the Group will be faced with both opportunities and challenges.

In terms of favorable factors, firstly, the focus of air pollution control of the PRC extends from the single thermal power enterprises to more industrial sectors such as petroleum & chemical, steel, and cement. There is a huge market in non-electric industry. Secondly, the further promotion of the Belt and Road Initiative by the PRC will speed up the development of regional economy and cooperation in international capacity and “going out” of Chinese equipment, which brings about a promising prospect for the environmental protection and energy conservation business of the Group in overseas markets. Thirdly, the Group is being included in the list of “Double Hundred Actions of the Reform of State-owned Enterprises” launched by the State-owned Assets Supervision and Administration Commission of the State Council, and will be faced with unprecedented reform opportunities. The implementation of “Double Hundred Actions of the Reform of State-owned Enterprises” will help break institutional constraints to provide new energy for development.

In terms of unfavorable factors, firstly, power development in the PRC has entered the key period of transferring mode, adjusting structure and shifting motivation. The power overcapacity, the long-term high price of coal, and the scaling up of power marketization have certain impact on the profitability of the environmental protection facility concession operation business of the Group; secondly, the environmental protection and air pollution control market in the power industry is becoming saturated. The traditional environmental protection engineering business is decreasing year by year, and the competition among environmental protection enterprises is intensified, and these enterprises are in urgent need to expand their businesses to non-power areas.

### Main Tasks in 2019

#### 1. *Continuously reinforcing the establishment of professional platforms and improving profitability*

The Group will keep improving franchise business, and realize “first-rate management, technologies, indicators and costs”. The Group will improve the construction of existing environmental protection facility operation platform featuring the integration of information technology and industrialization, in conjunction with big data analysis, to leverage on the support function of informatization on operation and management of enterprises. The Group will optimize and re-innovate existing technologies in respect of intelligent control and refined operation, to improve the operating efficiency of desulfurization and denitrification system. The Group will, based on optimized operation and reaching design values, keep improving the level of production indicators through 2019-2020 Special Action Plan on Energy Conservation and Consumption Reduction.

## Management Discussion and Analysis (Continued)

### **2. *Accelerating technological innovation and continuously enhancing the transformation and upgrading of enterprises***

The Group will make full use of the technology conversion platform to further strengthen cooperation with research institutes and increase the transformation speed of technology conversion. Firstly, the Group will accelerate the efficiency upgrade of specialized operation and improve the operation efficiency of desulfurization and denitrification system through a series of technology optimization and re-innovation; secondly, the Group will speed up the reserve of core technology through various approaches such as technology introduction and cooperative development, and properly reserve certain advanced technology; thirdly, the Group will further improve the industrial chain of denitrification catalysts and obtain the production capacity of honeycomb catalysts through various approaches, which will be used as an opportunity to expand the production capacity of medium and low temperature catalysts and gas catalysts, to further enrich the variety of denitrification catalysts products of the Group, and to enlarge services business including catalyst detecting, system commissioning, technology consulting and professional training.

### **3. *Thoroughly expanding overseas market and continuously strengthening the development of international business***

With the continuous implementation of the Belt and Road Initiative, the Group will constantly improve the capacity of developing international business, and earnestly tapped into the regional market along the Belt and Road Initiative countries, focusing deployment of India, Thailand, Vietnam and other Southeast Asia countries to realize development of differentiation. The Group endeavors to build the standardized and professional international team with accumulated experience and technology advantages from environmental protection of electric power to achieve rapid and sustainable development of international business.

### **4. *Strengthening systematic and institutional innovation and fully promoting to make a breakthrough in “Double Hundred Actions of the Reform of State-owned Enterprises”***

The Group will seize the opportunity brought by the “Double Hundred Actions of the Reform of State-owned Enterprises” and focus on the 13th Five-Year Plan and the goals for the next three years. With effectiveness improvement and external development as the guideline, the Group will construct market-oriented system and mechanism to remove constraints and solve major problems which affecting the survival and development of enterprises. Firstly, the Group will accelerate the reform of incentive mechanism and realize market-oriented allocation of staff; secondly, the Group will make good plans for the medium and long-term incentives, the improvement of corporate governance system and the reform of mixed ownership; thirdly, through reform, the Group will stimulate vitality of resource elements to enhance innovation capabilities and market competitiveness, building a world-class environmental protection enterprises.



# Report of Directors

The Board hereby presents this report of Directors and the annual report as well as the Group's audited consolidated financial statements for the year of 2018 prepared in accordance with the International Financial Reporting Standards ("IFRSs").

## I. CORPORATE INFORMATION

The Company was incorporated as a joint stock Company in the PRC with limited liability on 25 July 2011. Basic information about the Company is set out in the sections headed "Company Profile" and "Corporate Information" on page 7 and pages 231 to 232 of this annual report.

## II. PRINCIPAL BUSINESS

The Group is the sole platform for the development of environmental protection and energy conservation business under China Datang Corporation, one of the 4 major state wholly-owned power generation groups in the PRC. The principal business of the Group includes environmental protection facility concession operation, denitrification catalysts, environmental protection facilities engineering, water treatment business, energy conservation business and renewable energy engineering business.

Details of the Company's subsidiaries are set out in Note 1 to the financial statements in this annual report.

## III. RESULTS AND BUSINESS REVIEW

The audited financial results of the Group for the year ended 31 December 2018 are set out in the consolidated statement of profit or loss and other comprehensive income on page 111 of this annual report. The financial position of the Group and of the Company as at 31 December 2018 is set out in the consolidated statement of financial position on pages 113 to 114 of and in Note 39 to the financial statements in this annual report. The cash flows of the Group for the year ended 31 December 2018 are set out in the consolidated statement of cash flows on pages 116 to 117 of this annual report.

A discussion and analysis of the Group's business review, results and performance during the year ended 31 December 2018, the discussion and analysis of the key factors of its results and financial performance, risk factors and risk management and the prospect for future development are set out in the section headed "Management Discussion and Analysis" on pages 12 to 31 of this annual report, and the "Report of Directors" on pages 32 to 58 of this annual report. The description of relationship between the Group and employees is set out in the section headed "Human Resources" on pages 104 to 105 of this annual report. The indemnity provisions of the Company are set out in the section headed "Directors' liability insurance and the permitted indemnity provisions" under the corporate governance report on page 66 of this annual report. The aforementioned sections form part of the report of Directors.

### IV. ENVIRONMENTAL POLICIES AND PERFORMANCE OF THE COMPANY

As an environmental protection technology company, the Group strictly abides by the environment and social-related laws and regulations that have a significant impact on the Group in relation to its businesses, including provision of environmental protection and energy conservation services, monitoring of the pollutants generated by coal-fired power plants, and provision of renewable energy services, etc. Meanwhile, as a responsible company, the Group proactively performed its social responsibility in 2018, and conducted business by taking fulfillment of the concept of sustainable development as its duty. It also adheres to mutually beneficial cooperation with customers and employees to seek for common development, and strives to maintain a balance of harmony with ecological environment and social environment. The Group will keep on undertaking social responsibilities and exerting advantages as an environmental protection enterprise and making consistent efforts to forage an environment with blue sky and white clouds.

Details of the environment, social and governance of the Company will be set out in the Environmental, Social and Governance Report (the “**ESG Report**”) to be issued by the Company separately pursuant to Rule 13.91 and Appendix 27 to the Listing Rules.

### V. COMPLIANCE WITH LAWS AND REGULATIONS

As an H share company incorporated in the PRC with limited liabilities and listed on the Main Board of the Stock Exchange, the Company is governed by various applicable domestic laws and regulations including the Company Law of the People’s Republic of China (“**Company Law**”), the Production Safety Law of the People’s Republic of China, the Standards for Corporate Governance of Listed Companies 《(上市公司治理準則)》 promulgated by the CSRC, the Guideline on Comprehensive Risk Management of Central Enterprises 《(中央企業全面風險管理指引)》 promulgated by the SASAC, as well as the Listing Rules and the SFO. The Group has implemented risk management and internal control measures to ensure its compliance with such laws and regulations. Having reviewed the business performance of the Group, the Board is of the view that the Group has been in compliance with the requirements of relevant laws and regulations in all material respects.

The discussion and analysis of legal risks exposed to the Company are set out in the section headed “Risk Factors and Risk Management” on pages 28 to 29 of this annual report.

## Report of Directors (Continued)

### VI. USE OF NET PROCEEDS FROM THE INITIAL PUBLIC OFFERING

The Company has been listed on the Main Board of the Stock Exchange since 15 November 2016. The net proceeds from the initial public offering and partial exercise of the over-allotment option, after deducting the underwriting fees and relevant expenses, amounted to approximately HK\$2,032.3 million, which will be used in the ways stated in the section headed "Future Plans and Use of Proceeds" of the Prospectus.

The following table sets forth the use of net proceeds from the initial public offering as at 31 December 2018:

	Use of net proceeds disclosed in the Prospectus (HK\$ Million)	Actual use of net proceeds up to 31 December 2018 (HK\$ Million)	Unused net proceeds up to 31 December 2018 (HK\$ Million)	Expected time of full utilization of remaining balance
To finance the capital expenditures for expanding the desulfurization and denitrification concession operations	1,219.5	1,086.5	133.0	December 2019
To develop new sources of growth in the revenue and profit, including but not limited to EMC business for coal-fired power plants, water treatment business, and providing customers with overall solution plans of ultra-low emissions	304.8	304.8	0.0	–
To repay some of the existing bank loans in order to lower the finance costs and improve the leverage ratio	203.2	203.2	0.0	–
For working capital and other general corporate purposes	203.2	201.5	1.7	December 2019
For research and development expenditures	101.6	7.6	94.0	December 2019
Total	2,032.3	1,803.6	228.7	

### VII. PROPERTY, PLANT AND EQUIPMENT

Details of the changes in property, plant and equipment of the Group are set out in Note 13 to the financial statements in this annual report.

At the end of the Reporting Period, the Group had no investment properties or properties held for development and/or sale with one or more of the percentage ratios (as defined under Rule 14.04(9) of the Listing Rules) exceeding 5%.

### VIII. SHARE CAPITAL

As at 31 December 2018, the total registered shares of the Company was RMB2,967,542,000, divided into 624,296,200 H Shares and 2,343,245,800 Domestic Shares. Details of the changes in issued share capital of the Company during the Reporting Period are set out in Note 27 to the financial statements in this annual report.

### IX. PRE-EMPTIVE RIGHTS

As at 31 December 2018, there were no provisions for pre-emptive rights under the Articles of Association or the relevant PRC laws, which require the Company to offer new Shares to existing Shareholders in proportion to their shareholdings.

### X. RESERVES

Details of the changes in reserves of the Group and of the Company during the Reporting Period are set out in the consolidated statement of changes in equity and in Note 39 to the financial statements in this annual report.

### XI. RETAINED PROFITS

Pursuant to the Articles of Association, where there are differences between Accounting Standards for Business Enterprises of the PRC (“**PRC GAAP**”) and the IFRSs, the retained profits shall be the lower of the amounts shown in the two different financial statements. There is no discrepancy between the net assets at the end of 2018 as calculated in accordance with PRC GAAP and the IFRSs. The retained profits of the Group as of 31 December 2018 is set out in the consolidated statement of changes in equity.

The Board proposes to set aside 10% of the profit after tax as the statutory surplus reserve in accordance with the Company Law and the Articles of Association, and not to set aside discretionary reserve. This proposal will be submitted to the 2018 AGM for consideration and approval.

### XII. 2018 FINAL DIVIDEND AND RELATED CLOSURE OF REGISTER OF MEMBERS

According to the resolutions of the Board passed at the tenth meeting of the second session of the Board on 26 April 2019, the Board proposed to distribute the final dividend for the year ended 31 December 2018 of RMB0.11 per share of the Company (the “**Shares**”) (before tax) (the “**Proposed 2018 Final Dividend**”) in cash to the Shareholders of the Company (the “**Shareholders**”). If the proposal is approved by the Shareholders at the 2018 AGM to be held on Friday, 28 June 2019, the Proposed 2018 Final Dividend is expected to be distributed on or about Friday, 16 August 2019 to the Shareholders whose names appear on the register of members of the Company on Wednesday, 10 July 2019. The Proposed 2018 Final Dividend to be distributed will be denominated and announced in RMB, of which dividends on Domestic Shares will be paid in RMB whereas dividends on H Shares will be paid in Hong Kong dollars (the exchange rate of RMB to Hong Kong dollars will be exchanged at the average exchange rate as announced by the People’s Bank of China for a week prior to the date of the 2018 AGM).

## Report of Directors (Continued)

In order to ascertain the entitlements of the Shareholders to receive the Proposed 2018 Final Dividend, the register of members of the Company will be closed from Friday, 5 July 2019 to Wednesday, 10 July 2019 (both days inclusive), during which period no transfer of Shares will be effected. To be eligible to receive the Proposed 2018 Final Dividend, all transfer documents must be lodged with the Company's H Share Registrar, Computershare Hong Kong Investor Services Limited at Shops 1712-1716, 17th Floor, Hopewell Centre, 183 Queen's Road East, Wanchai, Hong Kong (for holders of H Shares), or the Company's board office in the PRC at No. 120 Zizhuyuan Road, Haidian District, Beijing, the PRC, 100097 (for holders of Domestic Shares), no later than 4:30 p.m. on Thursday, 4 July 2019.

### XIII. TAX

According to the Enterprise Income Tax Law of the PRC (《中華人民共和國企業所得稅法》) and its implementation regulations (the "**EIT Law**"), the tax rate of the enterprise income tax applicable to the income of a non-resident enterprise deriving from the PRC is 10%. For this purpose, any H Shares registered in the name of non-individual enterprises, including HKSCC Nominees Limited, other agents or trustees, or other organizations or groups, shall be deemed as shares held by non-resident enterprise Shareholders (as defined under the EIT Law). When the Company distributes dividends to non-resident enterprise Shareholders, it is liable to withhold enterprise income tax on their behalf at an interest rate of 10%. Any H Shares registered in the name of non-individual enterprises, including HKSCC Nominees Limited, other agents or trustees, or other organizations or groups, shall be deemed as shares held by non-resident enterprise Shareholders. Therefore, the Company will distribute dividends to such nonresident enterprises Shareholders after withholding 10% of enterprise income tax. If H Shareholders need to change their Shareholder's status, they shall consult with the agents or trustees on the procedures. In strict compliance with laws and requirements of relevant government authorities, the Company will withhold the enterprise income tax according to the register of members of the H Shares of the Company as at the record date.

Any resident enterprise (as defined under the EIT Law) which has been legally incorporated in the PRC or which was established pursuant to the laws of foreign countries (regions) but has established effective administrative entities in the PRC, and whose name appears on the Company's register of members of H Share should deliver a legal opinion ascertaining its status as a resident enterprise furnished by a qualified PRC lawyer (with the official chop of the law firm issuing the opinion affixed thereon) and relevant documents to the H Share Registrar, Computershare Hong Kong Investor Services Limited, if they do not wish to have the 10% enterprise income tax withheld and paid on their behalf by the Company.

## Report of Directors (Continued)

Pursuant to the Notice on the Issues on Levy and Administration of Individual Income Tax after the Abolishment of Guo Shui Fa [1993] No. 045 Document 《(關於國稅發(1993)045號文件廢止後有關個人所得稅徵管問題的通知)》 issued by the State Administration of Tax on 28 June 2011, the dividend to be distributed by the PRC non-foreign invested enterprises which have issued shares in Hong Kong to the overseas resident individual shareholders, is subject to the individual income tax with a tax rate of 10% in general.

If the individual H Shareholders are residents of Hong Kong or Macau or those countries which have entered into a tax treaty with the PRC stipulating a dividend tax rate of 10%, the Company will finally withhold and pay individual income tax at the rate of 10% on behalf of these Shareholders. If the individual H Shareholders are residents of those countries which have entered into a tax treaty with the PRC stipulating a dividend tax rate of less than 10%, the Company will make applications on their behalf to seek entitlement of the relevant agreed preferential treatments pursuant to the relevant tax treaty. Under the above circumstances, if the relevant individual H Shareholders want a refund of the extra amount withheld (the “**Extra Amount**”) due to the application of 10% tax rate, the Company can apply for the relevant agreed preferential tax treatment provided that the relevant Shareholders submit the evidence required by the notice of the tax treaty to the H Share Registrar. The Company will assist with the tax refund after receiving approval of the competent tax authority. Should the individual H Shareholders be residents of the countries which have an agreed tax rate of over 10% but less than 20% with the PRC under the tax treaty, the Company will withhold and pay the individual income tax at the agreed actual rate in accordance with the relevant tax treaty. In the case that the individual H Shareholders are residents of the countries which have an agreed tax rate of 20% with the PRC, or which have not entered into any tax treaty with the PRC, or otherwise, the Company will withhold and pay the individual income tax at a rate of 20%.

The Company will strictly comply with the laws and requirements of the relevant government authorities and withhold and pay enterprise and individual income tax on behalf of the Shareholders based on the register of members of the H Shares on the record date. The Company assumes no liability whatsoever in respect of and will not entertain any claims arising from any delay in, or inaccurate determination of, the status of the Shareholders or any disputes over the mechanism of withholding of enterprise income tax. The Company assumes no liability whatsoever in respect of any claims arising from any delay in, or inaccurate determination of the status of the Shareholders or any disputes over the mechanism of withholding.

## Report of Directors (Continued)

### **XIV. REPURCHASE, SALE OR REDEMPTION OF LISTED SECURITIES OF THE COMPANY**

For the year ended 31 December 2018, neither the Company nor any of its subsidiaries has repurchased, sold or redeemed any of the Company's listed securities.

### **XV. MAJOR CUSTOMERS AND SUPPLIERS**

For the year ended 31 December 2018, total sales to the Group's five largest customers represented approximately 21% of total revenue of the Group for the year of 2018, among which total sales to the largest customer accounted for approximately 6% of total revenue of the Group for the year of 2018. The super-majority of our top five customers during the Reporting Period were subsidiaries of China Datang, and the Group was heavily reliant on sales to China Datang Corporation as its principal source of revenue. For the year ended 31 December 2018, the total value of products and services provided by the Group to China Datang Corporation represented approximately 78% of the total revenue of the Group for the corresponding period. If not taking into account of revenue generated from the concession operations, the Group's revenue generated from transactions with China Datang Corporation represented approximately 41% of the total revenue of the Group for the year ended 31 December 2018.

For the year ended 31 December 2018, total purchase from the Group's five largest suppliers represented approximately 17% of total cost of sales of the Group for the year of 2018, among which total purchase from the largest supplier accounted for approximately 4% of total cost of sales of the Group for the year of 2018. During the Reporting Period, the Group procured certain products and services from China Datang Corporation. For the years ended 31 December 2018, the total value of products and services procured by the Group from China Datang Corporation represented approximately 21% of the total costs of the Group for the year ended 31 December 2018.

To the best of the Directors' knowledge, except for certain subsidiaries of China Datang that were among our top five customers or suppliers, none of the Directors, Supervisors, Senior Management, their close associates or any Shareholders (to the best of the Directors' knowledge, who holds more than 5% of the issued Shares) have any interest in the five largest customers or suppliers of the Company during the Reporting Period.

During the Reporting Period, the Company maintained good relations with its customers and suppliers. The Company kept contact with its customers and suppliers, and maintained communication with them via various channels, such as telephone, email and physical meetings, to receive feedback and suggestions.

### **XVI. BANK BORROWINGS AND OTHER LOANS**

The details of bank borrowings and other loans of the Group as at 31 December 2018 are set out in Note 26 to the financial statements in this annual report.

### **XVII. STAFF**

Staff is the key for the Group's sustainable development. Details of the staff of the Group are set out in the sections headed "Profile of Directors, Supervisors and Senior Management" and "Human Resources" on pages 86 to 103 and pages 104 to 105 respectively in this annual report.

## Report of Directors (Continued)

### XVIII. ENTRUSTED DEPOSITS AND OVERDUE TERM DEPOSITS

For the year ended 31 December 2018, the Group had no entrusted deposits with financial institutions in the PRC, or term deposits which were overdue but unrecovered.

### XIX. DIRECTORS, SUPERVISORS AND SENIOR MANAGEMENT

The following table sets forth certain information concerning the Directors, Supervisors and Senior Management from 1 January 2018 to the date of publishing of this annual report:

Name	Position in the Company	Date of appointment/ resignation as a Director/ Supervisor/Senior Management
<b>Directors</b>		
JIN Yaohua	Chairman of the Board and non-executive Director	June 2015
LIU Chuandong	Non-executive Director	June 2015
LIU Guangming	Non-executive Director	April 2016
LI Yi	Non-executive Director	June 2018
DENG Xiandong	Non-executive Director	March 2019
SHEN Zhen	Former general manager Executive Director and deputy general manager	Resigned in March 2019 November 2018
YE Xiang	Independent non-executive Director	June 2015
MAO Zhuanjian	Independent non-executive Director	June 2015
GAO Jiayang	Independent non-executive Director	April 2016
LIANG Yongpan	Former non-executive Director	Retired in June 2018
LU Shengli	Former non-executive Director and deputy general manager	Resigned in November 2018
<b>Supervisors</b>		
WANG Yuanchun	Chairman of the Supervisory Committee	June 2015
MIAO Shihai	Supervisor	June 2018
CHEN Li	Employee representative Supervisor	January 2018
LIU Liming	Former Supervisor	Retired in June 2018
LIU Jianxiang	Former employee representative Supervisor	Resigned in January 2018
<b>Senior Management <sup>(1)</sup></b>		
Hou Guoli	General manager	March 2019
LIU Weihua	Deputy general manager	August 2018
WANG Haijie	Deputy general manager	April 2019



## Report of Directors (Continued)

Name	Position in the Company	Date of appointment/ resignation as a Director/ Supervisor/Senior Management
MAO Hui	Deputy general manager	March 2017
ZENG Bing	Secretary of the Discipline Inspection Committee	August 2017
	Former secretary of the Board, Joint Company Secretary and authorised representative <sup>(2)</sup>	Resigned in August 2018
LIANG Xiuguang	Deputy general manager	March 2018
ZHU Mei	Deputy general manager	July 2018
	Secretary of Board, Joint Company Secretary and authorised representative	August 2018
WANG Changqing	Deputy general manager	August 2018
WANG Guanghui	Chief accountant	August 2018
REN Haitao	Deputy general manager	August 2018
LIU Yinshun	Former deputy general manager	Resigned in August 2018
Zhang Keyan	Former chief accountant	Resigned in August 2018

*Notes:*

- (1) The list of Senior Management excludes those who are also serving as Directors or Supervisors.
- (2) ZENG Bing resigned as secretary of the Board, Joint Company Secretary and authorized representative of the Company in August 2018.

The Company has received, from each of the independent non-executive Directors, an annual confirmation of his independence pursuant to Rule 3.13 of the Listing Rules, and considers that each of the independent non-executive Directors is independent of the Company.

### XX. CHANGE OF DIRECTORS, SUPERVISORS AND SENIOR MANAGEMENT

From 1 January 2018 to the date of this report of Directors, according to the requirement of Rule 13.51B(1) of the Listing Rules, the changes in information of Directors are set out as follows:

- Mr. LIANG Yongpan retired as a non-executive Director with effect from June 2018.
- Mr. LI Yi served as a non-executive Director with effect from June 2018.
- Mr. LU Shengli resigned as an executive Director with effect from November 2018.
- Mr. SHEN Zhen served as an executive Director with effect from November 2018.
- Mr. DENG Xiandong re-designated from an executive Director to a non-executive Director with effect from 22 March 2019.

From 1 January 2018 to the date of this report of Directors, according to the requirement of Rule 13.51B(1) of the Listing Rules, the changes in information of Supervisors are set out as follows:

- Mr. LIU Jianxiang resigned as the employee representative Supervisor with effect from January 2018.

## Report of Directors (Continued)

- Mr. CHEN Li served as the employee representative Supervisor with effect from January 2018.
- Mr. LIU Liming retired as the Supervisor with effect from June 2018.
- Mr. MIAO Shihai served as the Supervisor with effect from June 2018.

From 1 January 2018 to the date of this report of Directors, according to the requirement of Rule 13.51B(1) of the Listing Rules, the changes in information of Senior Management are set out as follows:

- Mr. LIANG Guangxiu served as a deputy general manager of the Company with effect from March 2018.
- Ms. ZHU Mei served as a deputy general manager of the Company with effect from July 2018.
- Mr. LIU Yinshun resigned as a deputy general manager of the Company with effect from August 2018.
- Mr. ZENG Bing resigned as the secretary of the Board, Joint Company Secretary and authorised representative with effect from August 2018.
- Mr. Zhang Keyan resigned as the chief accountant of the Company with effect from August 2018.
- Mr. WANG Guanghui served as the chief accountant of the Company with effect from August 2018.
- Mr. LIU Weihua served as a deputy general manager of the Company with effect from August 2018.
- Mr. REN Haitao served as a deputy general manager of the Company with effect from August 2018.
- Mr. WANG Changqing served as a deputy general manager of the Company with effect from August 2018.
- Ms. ZHU Mei served as the secretary of the Board, Joint Company Secretary and authorized representative with effect from August 2018.
- Mr. DENG Xiandong resigned as the general manager of the Company with effect from March 2019.
- Mr. HOU Guoli served as the general manager of the Company with effect from March 2019.

For details, please refer to the announcements of the Company dated 31 January 2018, 23 March 2018, 29 June 2018, 23 July 2018, 17 August 2018, 15 November 2018 and 22 March 2019 with respect to the changes in Directors, Supervisors and Senior Management respectively.

## Report of Directors (Continued)

### **XXI. BIOGRAPHIES OF DIRECTORS, SUPERVISORS AND SENIOR MANAGEMENT**

Biographical details of Directors, Supervisors and Senior Management are set out in the section headed "Profile of Directors, Supervisors and Senior Management" on pages 86 to 103 of this annual report.

### **XXII. SERVICE CONTRACTS OF THE DIRECTORS AND SUPERVISORS**

The Company has entered into service contracts with each of the Directors. According to the Articles of Association, the term of office is three years. The principal particulars of these service contracts comprise (a) the term of office commencing from the effective date of their appointments to the date of the next Shareholder's general meeting for the re-election of Directors, and (b) termination provisions in accordance with their respective terms. Service contracts can be renewed in accordance with the Articles of Association and applicable regulations.

Each of the Supervisors has entered into a contract with the Company in respect of provisions, among other things, in compliance with relevant laws and regulations, and on observations of the Articles of Association and arbitration.

Save as disclosed above, none of the Directors or Supervisors has entered into a service contract with the Company which is not terminable by the Company within one year without payment of compensation, other than statutory compensation.

### **XXIII. REMUNERATION OF DIRECTORS, SUPERVISORS AND SENIOR MANAGEMENT**

Details of the remuneration of the Directors, Supervisors and Senior Management during the Reporting Period are set out in Notes 8 and 34(d) to the financial statements and in the section headed "Remuneration of Directors, Supervisors and Senior Management" on page 77 of this annual report.

### **XXIV. INTERESTS OF DIRECTORS AND SUPERVISORS IN TRANSACTIONS, ARRANGEMENTS AND CONTRACTS**

As at 31 December 2018, no transaction, arrangement or contract of significance to which the Company was involved in its establishment either directly or indirectly, in which a Director or Supervisor or an entity connected with a Director or Supervisor had material interests, and with which the Company's business is connected, subsisted during or at the end of the Reporting Period.

### **XXV. INTEREST OF DIRECTORS IN COMPETING BUSINESS**

As at 31 December 2018, Mr. Li Yi and Mr. Liu Guangming, two non-executive Directors also acted as non-executive Directors of Datang Renewable (a subsidiary of China Datang and listed on the Main Board of the Stock Exchange, stock code: 1798), directors of Datang Huayin (a subsidiary of China Datang and listed on the Shanghai Stock Exchange, stock code: 600744). Neither of Mr. Li Yi and Mr. Liu Guangming was involved in daily operations of Datang Renewable and Datang Huayin. As at 31 December 2018, Datang Renewable held interests in EMC business and wind power EPC business that competes with Our Principal Business (as defined in the Prospectus), and Datang Huayin held interests in EMC business and energy conservation EPC business that competes with Our Principal Business. For details, please refer to the section headed "Relationship with Our Controlling Shareholder" in the Prospectus.

Mr. Li Yi and Mr. Liu Guangming will abstain from voting for decision making involving any competing business with Datang Renewable or Datang Huayin. Even if both of them simultaneously abstain from voting, there will still remain seven Directors (including three non-executive Directors, one executive Director and three independent non-executive Directors) in the Board which will enable effective decision makings.

Save as disclosed above, the Directors confirm that, as of 31 December 2018, neither of them had any direct or indirect interest in any business which competes or might compete with Our Principal Business.

### **XXVI. INTERESTS AND SHORT POSITIONS OF THE DIRECTORS, SUPERVISORS AND CHIEF EXECUTIVE IN THE SHARES, UNDERLYING SHARES AND DEBENTURES OF THE COMPANY AND ITS ASSOCIATED CORPORATIONS**

As at 31 December 2018, none of the Directors, Supervisors or chief executive of the Company had any interest or short position in the Shares, underlying Shares or debentures of the Company or any of its associated corporations (within the meaning of Part XV of the SFO) which would have to be notified to the Company and the Stock Exchange pursuant to Divisions 7 and 8 of Part XV of the SFO (including interests or short positions which they were taken or deemed to have under such provisions of the SFO), or which were required, pursuant to Section 352 of the SFO, to be recorded in the register referred to therein, or which were required to be notified to the Company and the Stock Exchange pursuant to the Model Code for Securities Transactions by Directors of Listed Issuers (the "Model Code") stated in Appendix 10 to the Listing Rules.

## Report of Directors (Continued)

### XXVII. INTERESTS AND SHORT POSITIONS OF SUBSTANTIAL SHAREHOLDERS IN SHARES AND UNDERLYING SHARES

As at 31 December 2018, to the best of the Directors' knowledge, having made all reasonable enquiries, the following persons (other than the Directors, Supervisors or chief executive of the Company) had interests or short positions in the Shares or underlying Shares which would fall to be disclosed to the Company pursuant to Divisions 2 and 3 of Part XV of the SFO and, which were entered in the register required to be kept by the Company pursuant to Section 336 of the SFO:

As at 31 December 2018					
Name of Substantial Shareholder	Class of Shares	Capacity	Number of Shares/ underlying Shares directly or indirectly held (Share)	Percentage in the relevant class of share capital <sup>(1)</sup> (%)	Percentage in the total share capital <sup>(2)</sup> (%)
China Datang	Domestic Shares	Beneficial owner	2,343,245,800 (Long position)	100	78.96
Anbang Investment Holdings Co., Limited (安邦投資控股有限公司) <sup>(3)</sup>	H Shares	Beneficial owner	120,540,000 (Long position)	19.31	4.06
Anbang Group Holdings Co. Limited (安邦集團控股有限公司) <sup>(3)</sup>	H Shares	Interest in controlled corporation	120,540,000 (Long position)	19.31	4.06
Anbang Life Insurance Co., Ltd. (安邦人壽保險股份有限公司) <sup>(3)</sup>	H Shares	Interest in controlled corporation	120,540,000 (Long position)	19.31	4.06
Anbang Insurance Group Co., Ltd. (安邦保險集團股份有限公司) <sup>(3)</sup>	H Shares	Interest in controlled corporation	120,540,000 (Long position)	19.31	4.06
China Chengtong Investment Company Limited <sup>(4)</sup>	H Shares	Beneficial owner	61,557,000 (Long position)	9.86	2.07
China Chengtong Holdings Group Ltd. <sup>(4)</sup>	H Shares	Interest in controlled corporation	61,557,000 (Long position)	9.86	2.07
China Energy Engineering Corporation Limited (中國能源建設集團有限公司)	H Shares	Beneficial owner	61,557,000 (Long position)	9.86	2.07
State Grid International Development Limited 國家電網國際發展有限公司 <sup>(5)</sup>	H Shares	Beneficial owner	61,467,000 (Long position)	9.85	2.07
State Grid Corporation of China 國家電網公司 <sup>(5)</sup>	H Shares	Interest in controlled corporation	61,467,000 (Long position)	9.85	2.07
Three Gorges Capital Holdings Co., Ltd. 三峽資本控股有限責任公司 <sup>(6)</sup>	H Shares	Beneficial owner	59,506,000 (Long position)	9.53	2.01
China Three Gorges Corporation 中國長江三峽集團公司 <sup>(6)</sup>	H Shares	Interest in controlled corporation	59,506,000 (Long position)	9.53	2.01

## Report of Directors (Continued)

As at 31 December 2018					
Name of Substantial Shareholder	Class of Shares	Capacity	Number of Shares/ underlying Shares directly or indirectly held <i>(Share)</i>	Percentage in the relevant class of share capital <sup>(1)</sup> <i>(%)</i>	Percentage in the total share capital <sup>(2)</sup> <i>(%)</i>
China Huaneng Group Hong Kong Limited (中國華能集團香港有限公司) <sup>(7)</sup>	H Shares	Beneficial owner	49,002,000 (Long position)	7.85	1.65
China Huaneng Group (中國華能集團公司) <sup>(7)</sup>	H Shares	Interest in controlled corporation	49,002,000 (Long position)	7.85	1.65
China Huadian Hong Kong Company Limited (中國華電香港有限公司) <sup>(6)</sup>	H Shares	Beneficial owner	48,628,000 (Long position)	7.79	1.64
China Huadian Corporation (中國華電集團公司) <sup>(6)</sup>	H Shares	Interest in controlled corporation	48,628,000 (Long position)	7.79	1.64
Taiping General Insurance Co., Ltd. (太平財產保險有限公司) <sup>(9)</sup>	H Shares	Beneficial owner	41,038,000 (Long position)	6.57	1.38
China Taiping Insurance Holdings Company Limited (中國太平保險控股有限公司) <sup>(9)</sup>	H Shares	Interest in controlled corporation	41,038,000 (Long position)	6.57	1.38
China Taiping Insurance (HK) Company Limited (中國太平保險集團(香港)有限公司) <sup>(9)</sup>	H Shares	Interest in controlled corporation	41,038,000 (Long position)	6.57	1.38
China Taiping Insurance Group Ltd. (中國太平保險集團有限責任公司) <sup>(9)</sup>	H Shares	Interest in controlled corporation	41,038,000 (Long position)	6.57	1.38
China Life Franklin Asset Management Co., Limited (中國人壽富蘭克林資產管理有限公司) <sup>(10)</sup>	H Shares	Beneficial owner	41,038,000 (Long position)	6.57	1.38
China Life Asset Management Company Limited (中國人壽資產管理有限公司) <sup>(10)</sup>	H Shares	Interest in controlled corporation	41,038,000 (Long position)	6.57	1.38
China Life Insurance Company Limited (中國人壽保險股份有限公司) <sup>(10)</sup>	H Shares	Beneficial owner	20,519,000 (Long position)	3.29	0.69
		Interest in controlled corporation	41,038,000 (Long position)	6.57	1.38
China Life Insurance (Group) Company (中國人壽保險(集團)公司) <sup>(10)</sup>	H Shares	Beneficial owner	41,038,000 (Long position)	6.57	1.38
		Interest in controlled corporation	20,519,000 (Long position)	3.29	0.69
		Interest in controlled corporation	41,038,000 (Long position)	6.57	1.38

## Report of Directors (Continued)

### Notes:

- (1) The calculation is based on the percentage of shareholding in a total of 2,343,245,800 Domestic Shares and a total of 624,296,200 H Shares respectively as at 31 December 2018.
- (2) The calculation is based on the percentage of shareholding in a total of 2,967,542,000 Shares as at 31 December 2018.
- (3) Anbang Investment Holdings Co., Limited is a wholly-owned subsidiary of Anbang Group Holdings Co. Limited. Anbang Group Holdings Co. Limited is a wholly-owned subsidiary of Anbang Life Insurance Co., Ltd., which is wholly owned by Anbang Insurance Group Co., Ltd..
- (4) China Chengtong Investment Company Limited is a wholly-owned subsidiary of China Chengtong Holdings Group Ltd..
- (5) State Grid International Development Limited is a wholly-owned subsidiary of State Grid Corporation of China.
- (6) Three Gorges Capital Holdings Co., Ltd. is the wholly-owned subsidiary of China Three Gorges Corporation.
- (7) China Huaneng Group Hong Kong Limited is a wholly-owned subsidiary of China Huaneng Group.
- (8) China Huadian Hong Kong Company Limited is a wholly-owned subsidiary of China Huadian Corporation.
- (9) Taiping General Insurance Co., Ltd. is a subsidiary of China Taiping Insurance Holdings Company Limited. China Taiping Insurance Holdings Company Limited is a subsidiary of China Taiping Insurance (HK) Company Limited, which is a wholly-owned subsidiary of China Taiping Insurance Group Ltd.
- (10) China Life Asset Management Company Limited is a controlling shareholder of China Life Franklin Asset Management Co., Limited. China Life Asset Management Company Limited is a subsidiary of China Life Insurance Company Limited, which is controlled by China Life Insurance (Group) Company.

Save as disclosed above, as at 31 December 2018, to the best knowledge of the Directors, the Directors were not aware of any persons who had interests and/or short positions in the Shares or underlying Shares which would be required to be disclosed to the Company under the provisions of Divisions 2 and 3 of Part XV of the SFO and which were entered in the register required to be kept by the Company pursuant to section 336 of the SFO.

### **XXVIII. DIRECTORS' AND SUPERVISORS' RIGHTS TO ACQUIRE SHARES OR DEBENTURES**

None of the Directors or Supervisors or any of their respective associates was granted by the Company or its subsidiaries any right to acquire the Shares or debentures of the Company or any other corporate body, or had exercised any such right.

### **XXIX. FINANCIAL, BUSINESS AND FAMILY RELATIONSHIPS AMONG DIRECTORS, SUPERVISORS AND SENIOR MANAGEMENT**

As at 31 December 2018, there is no financial, business or family relationship among the Directors, Supervisors and Senior Management.

### XXX. DIRECTORS' INSURANCE

As at 31 December 2018, the Company maintained effective Directors' insurance for the Directors.

### XXXI. MANAGEMENT CONTRACTS

For the year ended 31 December 2018, the Company did not enter into any contract in respect of the management or administration of the entire or any significant part of the business of the Company nor any such contract subsisted.

### XXXII. CONNECTED TRANSACTIONS

During the Reporting Period, the Group has conducted the following connected transactions:

#### 1. Exempt Continuing Connected Transactions

Pursuant to Chapter 14A of the Listing Rules, the continuing connected transaction of the Group as set out below is exempt from the requirements of reporting, annual review, announcement and independent shareholders' approval under Chapter 14A of the Listing Rules.

##### ***Trademark Licensing Agreement***

The Company and China Datang renewed a trademark licensing agreement on 1 December 2015 (the "**Trademark Licensing Agreement**"), in accordance with which China Datang agreed to grant the Group a non-exclusive license to use any of certain registered trademarks owned by China Datang for purposes of the Group's production equipment, products, services and profile documents, as well as using such licensed trademarks in the Company's business names, trade names or domain names. The initial term of the Trademark Licensing Agreement is three years upon listing, which can be renewed upon agreement by the parties. The trademark license is granted by China Datang at nil consideration.

During the Reporting Period, the Group did not pay any royalty fees to China Datang for the use of the licensed trademarks.

China Datang will remain as the Controlling Shareholder, and therefore a connected person of the Company under Rule 14A.11(1) of the Listing Rules. The transaction above is entered into on normal commercial terms. The Directors currently expect that the applicable percentage ratios of the above transaction for the respective years are nil. By virtue of Rule 14A.76(1)(a) of the Listing Rules, the continuing connected transaction above is exempt from the requirements of reporting, annual review, announcement and independent shareholders' approval under Chapter 14A of the Listing Rules.



## Report of Directors (Continued)

### 2. Non-exempt Continuing Connected Transactions

#### ***Continuing Connected Transactions Exempt from Circular and Shareholders' Approval Requirements***

*Framework agreement under which China Datang Corporation leases properties to the Group*

The Company and China Datang entered into a property leasing framework agreement on 1 December 2015 (the "**Property Leasing Framework Agreement**"), pursuant to which China Datang Corporation will lease certain properties to the Group. The Property Leasing Framework Agreement is for a term of 20 years and will take effect upon the Listing and is subject to renewal.

The rental of any leased property shall be ascertained through negotiation between the Group and China Datang Corporation primarily based on the actual costs of the property and taking into consideration the market price of similar properties in the same region where applicable and the relevant depreciation cost. The rental shall be provided as a fixed amount in the separate lease agreement to be executed in writing and between the Group and China Datang Corporation under the Property Lease Framework Agreement, the initial term of which shall be five years and can be renewed in writing by both parties. If, due to any change of national policies or market fluctuations that affects the fairness and reasonableness of the rental of a leased property under any lease agreement, the Group and China Datang Corporation may adjust the rental based on arm's length negotiations with reference to the new market price. However, the rental amount or any adjustment to the rental amount is subject to the independent non-executive Directors' review and approve to ensure that the rental amount is fair, reasonable and in the interest of the Company and our Shareholders as a whole.

The transactions under the Property Leasing Framework Agreement were negotiated on normal commercial terms. China Datang remained as the Controlling Shareholder, and therefore a connected person of the Company under Rule 14A.11(1) of the Listing Rules. Prior to the Listing, the Company had applied to the Stock Exchange and the Stock Exchange had granted the Company, a waiver from strict compliance with the rules regarding the announcement and independent shareholders' approval requirements under Chapter 14A of the Listing Rules, on condition that the aggregate amount of non-exempt continuing connected transactions in each of the year of 2016, 2017 and 2018 will not exceed the respective annual caps as set out in the Prospectus.

The exempt cap for the year of 2018 for the aforementioned property rent paid by the Group to China Datang Corporation and its associate(s) as approved by the Stock Exchange was RMB100 million. The actual total amount of property rent paid by the Group to China Datang Corporation and its associate(s) under the aforesaid agreement in 2018 was RMB33.52 million.

For details of the information with respect to the connected transactions mentioned above, please refer to the disclosure as set out in the section headed "Connected Transactions" of the Prospectus.

## Report of Directors (Continued)

### ***Non-exempt Continuing Connected Transactions subject to Reporting, Annual Review, Announcement and Independent Shareholders' Approval Requirements***

The following transactions are or will be conducted on normal commercial terms in the daily operations of the Group. The Directors currently expect that, each of the applicable percentage ratios of relevant transactions calculated for the purpose of Chapter 14A of the Listing Rules will exceed 5% on an annual basis, and the annual transaction amount will exceed HK\$10 million. Accordingly, each of such transactions will constitute a non-exempt continuing connected transaction of the Company subject to reporting, annual review, announcement and independent shareholders' approval requirements under Chapter 14A of the Listing Rules.

#### *Integrated Product and Service Framework Agreement between the Group and China Datang Corporation*

The Company entered into an integrated product and service framework agreement (the "**Integrated Product and Service Framework Agreement**") with China Datang on 26 October 2016 which took effect upon the Listing with an initial term of three years and can be renewed by agreement by the parties. Either party may terminate this agreement by a three-month prior written notice to the other party.

On 12 March 2018, the Company renewed the supplemental agreement to the Integrated Product and Service Framework Agreement (the "**Supplemental Agreement**") with China Datang, pursuant to which the Company provided China Datang with products and services in relation to thermal power plant general contracting business, with an annual cap of RMB1,200 million for 2018. The term of the Supplemental Agreement is from the effective date to 31 December 2018. As China Datang is the Controlling Shareholder, it is therefore a connected person of the Company pursuant to Chapter 14A of the Listing Rules. Accordingly, the Supplemental Agreement and the Transactions constitute continuing connected transactions of the Company under the Listing Rules. Given that one or more of the relevant percentage ratios (as defined in Rule 14.07 of the Listing Rules) of the Transactions calculated with reference to the revised annual cap is more than 5%, the Supplemental Agreement, the Transactions and the revised annual cap are subject to the reporting, announcement and independent Shareholders' approval requirements under Chapter 14A of the Listing Rules. The Supplemental Agreement was approved by independent Shareholders at the extraordinary general meeting held on 27 April 2018. For details, please refer to the announcement of the Company and the circular of extraordinary general meeting dated 12 March 2018.

Pursuant to the Integrated Product and Service Framework Agreement and Supplement Agreement, (a) the products and services to be provided by the Group to China Datang Corporation include environmental protection and energy conservation solutions, renewable energy engineering services, EPC for thermal power plants and other businesses, and (b) the products and services to be procured by the Group from China Datang Corporation include water and power supply, ancillary services under the business model of concession operations (desulfurization and denitrification), logistics services and procurement of equipment. In respect of all the products and services under the Integrated Product and Service Framework Agreement, the Company and/or its subsidiaries and China Datang Corporation and/or its subsidiaries can enter into separate contracts under and in line with the Integrated Product and Service Framework Agreement. If the terms and conditions of similar products and services offered by an independent third party to such party are no more favorable than those provided by one party, priority shall be accorded in the provision of products and services to the other party.

## Report of Directors (Continued)

The pricing policies of various products and services are as follows:

- For products and services to be provided by the Group to China Datang Corporation, in most circumstances, bidding procedures shall apply for the determination of such prices, and only in exceptional circumstances, bidding procedures can be skipped by China Datang Corporation. These exceptional circumstances primarily include reoccurrence of lack of sufficient number of bidders attending the bidding procedure and urgent purchase by China Datang Corporation Group that does not allow the bidding procedure to be completed.
  - (a) The price for the products, primarily denitrification catalysts, and services other than the concession operations (desulfurization and denitrification), to be provided by the Group to China Datang Corporation will be determined based on the bidding results, or if no bidding procedure is conducted, China Datang Corporation will search in its database for projects of a similar nature and make reference to recent bidding prices for comparable products. Usually the price is ascertained as the averaged amount of these recent bidding prices with reasonable fluctuations. However, if no recent bidding prices for comparable products can be found in its database, China Datang Corporation will make reference to prices of products of the similar nature published on official bidding websites operated by the PRC's government to ascertain the price.
  - (b) The tariff for desulfurized and denitrified electricity under the concession operations services shall be determined based on government-prescribed price. The price of by-products shall be determined based on market price.
- For products and services to be procured by the Group from China Datang Corporation, in most circumstances, bidding procedures shall apply for determination of the price, and only in exceptional circumstances, bidding procedures can be skipped by the Group. These circumstances primarily include reoccurrence of lack of sufficient number of bidders attending the bidding procedure and urgent purchase by the Group that does not allow the bidding procedure to be completed.
  - (a) The products, primarily water and power supplied by power plants under China Datang Corporation to the Group, will be determined based on the government-prescribed prices, which are actual costs of water and power for the supply of water and power by power plants to third-party desulfurization and denitrification concession operations service providers.
  - (b) The price for ancillary services under the concession operations (desulfurization and denitrification) services shall be determined based on cost of human resources involved, the relevant management expenses and the maintenance fees of the equipment of relevant power plants after taking into account the average level of the industry.

## Report of Directors (Continued)

- (c) For procurement of equipment, in most circumstances, bidding procedures shall apply for determination of the price, and only in exceptional circumstances, such as urgent purchase by the Group, bidding procedures can be skipped by the Group where the purchasing price shall be determined by experts of the Group based on fair market value and historical records of procurement price.
- (d) The price of the services other than the ancillary services under the concession operations (desulfurization and denitrification) to be provided by the Group to China Datang Corporation in accordance the Integrated Product and Service Framework Agreement shall be determined based on the following policies: Prices for bidding services shall be determined pursuant to the fee standards prescribed by the PRC government. Prices for other services, including conference services and training shall be determined based on market prices by making reference to recent prices for comparable services archived in the Group's database; if no comparable services can be found, the Group will make reference to prices of services of similar nature published on official bidding websites operated by the government to ascertain the price.

The transactions under the Integrated Product and Service Framework Agreement and Supplemental Agreement were negotiated on normal commercial terms. China Datang remained as the Controlling Shareholder, and therefore a connected person of the Company under Rule 14A.11(1) of the Listing Rules. The Company had applied to the Stock Exchange and the Stock Exchange had granted the Company, a waiver from strict compliance with the rules regarding the announcement and independent shareholders' approval requirements under Chapter 14A of the Listing Rules, on condition that the aggregate amount of non-exempt continuing connected transactions in each of the year of 2016, 2017 and 2018 would not exceed the respective annual caps. In addition, as approved by Independent Shareholders at the extraordinary general meeting held on 27 April 2018, the Company provided China Datang with products and services in relation to thermal power plant general contracting business, with an annual cap of RMB1,200 million for 2018.

The exempt cap for the year of 2018 for products and services other than concession operations (desulfurization and denitrification) services provided by the Group to China Datang Corporation as approved by the Stock Exchange and Independent Shareholders was RMB8,295 million. The actual total amount of products and services other than concession operations (desulfurization and denitrification) services provided by the Group to China Datang Corporation under the aforesaid agreement in 2018 was RMB3,501.69 million.

The exempt cap for the year of 2018 for concession operations (desulfurization and denitrification) services provided by the Group to China Datang Corporation as approved by the Stock Exchange was RMB4,259 million. The actual total amount of concession operations (desulfurization and denitrification) services provided by the Group to China Datang Corporation under the aforesaid agreement in 2018 was RMB3,027.6 million.

## Report of Directors (Continued)

The exempt cap for the year of 2018 products and services procured by the Group from China Datang Corporation as approved by the Stock Exchange was RMB2,681 million. The actual total amount of products and services procured by the Group from China Datang Corporation under the aforesaid agreement in 2018 was RMB1,458.29 million.

### *Financial Services Agreement between the Group and Datang Finance*

The financial services agreement entered into between the Company and Datang Finance (the “**Financial Services Agreement**”) on 24 April 2017 became effective after being approved by the Shareholders at the 2016 annual general meeting, and shall be valid until 31 December 2019, pursuant to which Datang Finance will provide the Group with loan services, deposit services and other financial services.

Datang Finance has undertaken to provide the aforesaid deposit services to the Group based on the following pricing principles:

Deposit services – within the range for the floating deposit and loan interest rates published by the PBOC and by reference to the benchmark interest rates published by the PBOC, the interest rate for the Group’s deposits with Datang Finance shall not be lower than the equivalent deposit interest rate as provided by other financial institutions in the PRC.

The interest rate for loans granted to the Group by Datang Finance shall not be higher than the equivalent loan interest rate as charged by other financial institutions in the PRC within the range for the floating deposit and loan interest rates published by the PBOC and by reference to the benchmark interest rates published by the PBOC.

The fees charged by Datang Finance for the provision of financial services to the Group other than deposit services and loan services shall not be higher than the rate charged by other financial institutions in the PRC for the same or similar type of services.

Datang Finance was the subsidiary of China Datang, and China Datang remained as the Controlling Shareholder. Therefore, Datang Finance was a connected person of the Company under Rule 14A.11(1) of the Listing Rules.

The proposed caps of the deposit services for the Group’s maximum daily deposit balance (including any interest accrued therefrom) in Datang Finance for the year 2018 was RMB4,000 million after being approved by the Shareholders. For the year of 2018, the Group’s actual maximum daily deposit balance (including any interest accrued therefrom) in Datang Finance according to the aforesaid agreement was RMB1,444.6 million.

## Report of Directors (Continued)

### *Financial Services Agreement between the Group and Datang Capital*

On 14 June 2018, the Company and China Datang Group Capital Holding Co., Ltd. ("**Datang Capital**") entered into a financial services agreement ("**Financial Services Agreement**"), pursuant to which Datang Capital provided the Company with finance lease and commercial factoring services. These services are provided by Datang Financial Lease Co., Ltd. and Datang Commercial Factoring Co., Ltd., respectively. Among which, annual caps of financial lease service for each year of 2018, 2019 and 2020: maximum daily balance of leasing principal is RMB910 million; outstanding interest fee and handling fee are RMB90 million; the annual caps of commercial factoring services for each year of 2018, 2019 and 2020 are RMB500 million. The term for the Financial Services Agreement commences from the effective date of agreement until 31 December 2020. China Datang is the Controlling Shareholder while Datang Capital is a wholly owned subsidiary of China Datang, and, therefore, is a connected person of the Company under Chapter 14A of the Listing Rules. Accordingly, the Financial Services Agreement and the transactions constitute continuing connected transactions of the Company under the Listing Rules. Given that one or more of the relevant percentage ratios (as defined in Rule 14.07 of the Listing Rules) of the transactions calculated with reference to the revised annual cap is more than 5%, the Financial Services Agreement, the transactions and the revised annual cap are subject to the reporting, announcement and independent Shareholders' approval requirements under Chapter 14A of the Listing Rules. In addition, the Financial Services Agreement and relevant transactions contemplated thereunder constitute discloseable transaction under Chapter 14 of the Listing Rules. The Financial Services Agreement was approved by independent Shareholders at the 2017 annual general meeting held on 28 June 2018. For details, please refer to the announcement of the Company and the supplemental circular of the 2017 annual general meeting dated 13 June 2018.

For the year of 2018, the Group's actual maximum daily balances of leasing principal in Datang Capital according to the aforesaid agreement was RMB265.0 million, the outstanding interest fee and handling fee RMB2.2 million and commercial factoring services fee RMB161.4 million.

### *Renewal of Integrated Product and Service Framework Agreement Between the Group and China Datang Corporation*

The Company renewed an integrated product and service framework agreement (the "**Integrated Product and Service Framework Agreement**") with China Datang Corporation on 27 July 2018, which was approved at the general meeting and took effect on 30 November 2018 with a term of three years and can be renewed by agreement by the parties. Either party may terminate this agreement by a three-month prior written notice to the other party. The Company had applied to the Stock Exchange and the Stock Exchange had granted the Company, a waiver from strict compliance with the rules regarding the announcement and independent shareholders' approval requirements under Chapter 14A of the Listing Rules, on condition that the aggregate amount of non-exempt continuing connected transactions in each of the year of 2019, 2020 and 2021 would not exceed the respective annual caps. For further details, please refer to the announcement and the supplemental circular of extraordinary general meeting issued by the Company dated 15 November 2018.

## Report of Directors (Continued)

### 3. Confirmation by Independent Non-executive Directors

The independent non-executive Directors have reviewed each of the above mentioned continuing connected transactions and confirmed that:

- (1) the transactions stated in the section headed “– Exempt Continuing Connected Transactions” in this annual report have been generated during the Group’s ordinary and usual course of business on normal commercial terms (or more favorable than normal commercial terms available for the Group), and that the terms of such transactions are fair and reasonable, and are in the interests of the Company and its Shareholders as a whole; and
- (2) the transactions and proposed annual caps stated in this section headed “– Non-exempt Continuing Connected Transactions” in this annual report have been generated during the Group’s ordinary and usual course of business on normal commercial terms (or more favorable than normal commercial terms available for the Group), and that the terms of such transactions are fair and reasonable, and are in the interests of the Company and its Shareholders as a whole.

### 4. Auditor’s Letter

Pursuant to Rule 14A.56 of the Listing Rules, the Board engaged the auditors of the Company, Ernst & Young, to report on the Group’s continuing connected transactions in accordance with the Hong Kong Standard on Assurance Engagements 3000 “Assurance Engagements Other Than Audits or Reviews of Historical Financial Information” and with reference to Practice Note 740 “Auditor’s Letter on Continuing Connected Transactions under Listing Rules” issued by the Hong Kong Institute of Certified Public Accountants. Based on its work, Ernst & Young has provided the Board with a letter confirming that, with respect to the aforesaid continuing connected transactions:

- (1) nothing has come to the auditor’s attention that causes the auditor to believe that the disclosed continuing connected transactions have not been approved by the Board of the Group;
- (2) transactions involving the provision of goods or services by the Group, nothing has come to the auditor’s attention that causes the auditor to believe that the transactions were not, in all material respects, in accordance with the pricing policies of the Group;
- (3) nothing has come to the auditor’s attention that causes the auditor to believe that the transactions were not entered into, in all material respects, in accordance with the relevant agreements governing such transactions; and
- (4) with respect to the aggregate amount of each of the continuing connected transactions set out above, nothing has come to the auditor’s attention that causes the auditor to believe that the disclosed continuing connected transactions have exceeded the annual cap of each of the above disclosed continuing connected transactions set by the Company.

### 5. Related Party Transactions

Please refer to Note 34 to the financial statements in this annual report for details of the significant related party transactions prepared in accordance with the IFRSs. For the connected transactions and continuing connected transactions pursuant to the requirements of the Listing Rules, please refer to the disclosure as set out in the above section headed “Connected Transactions” in this report of Directors. Except for those disclosed in the section headed “Connected Transactions” in this report of Directors, the other related party transactions as disclosed in Note 34 are not considered as connected transactions, or are exempt from reporting, announcement and independent shareholders’ approval requirements under the Listing Rules.

### XXXIII. COMPLIANCE WITH NON-COMPETITION AGREEMENT

The Company entered into the non-competition agreement with China Datang on 1 December 2015 (the “**Non-Competition Agreement**”). Under the Non-Competition Agreement, China Datang irrevocably undertook that, other than the Retained Business (as defined in the Prospectus), China Datang and its subsidiaries (excluding the Group and listed entities under China Datang and their respective subsidiaries) did not, during the term of the Non-Competition Agreement, and would procure their close associates not to, directly or indirectly, engage in, individually or jointly, with other entities, or assist to engage in or participate in any business which competes with Our Principal Business (as defined in the Prospectus). Furthermore, China Datang undertook to grant an option to the Company to acquire new business opportunities that may compete, directly or indirectly, with Our Principal Business, an option to acquire and a right of first refusal with regard to the retained business and/or the new competing business in the future (as defined in the Prospectus).

The independent non-executive Directors are responsible for reviewing and determining whether to accept such new business opportunity provided by China Datang or its associates by taking into consideration factors such as geography and compatibility of business nature of such new business opportunity to the Group’s strategy and prospect.

During the Reporting Period, there was no new business opportunity provided by China Datang or its associate(s) in accordance with the Non-Competition Agreement.

The Company has received the confirmation letter from China Datang, which confirmed that, in 2018, China Datang was in compliance with all undertakings and provisions under the Non-Competition Agreement.

The independent non-executive Directors have reviewed the implementation of the Non-Competition Agreement and confirmed that China Datang has been in full compliance with the Non-Competition Agreement and there was no breach by China Datang.

### XXXIV. RETIREMENT AND EMPLOYEES BENEFIT SCHEME

Details of the Company’s retirement and employees benefit scheme are set out in Note 7 to the financial statements in this annual report.



## Report of Directors (Continued)

### XXXV. COMPLIANCE WITH THE CORPORATE GOVERNANCE CODE

As a company listed on the Main Board of the Stock Exchange, the Company strives to maintain a high standard of corporate governance practices. Save as disclosed in this annual report, for the year ended 31 December 2018, the Company has complied with the code provisions of the corporate governance code as set out in Appendix 14 to the Listing Rules. Please refer to the corporate governance report as set out on pages 59 to 81 of this annual report for details.

### XXXVI. PUBLIC FLOAT

Based on information publicly available to the Company and so far as the Directors are aware, 21.04% of the issued share capital of the Company was held by the public as at the Latest Practicable Date, which was in compliance with the requirements and public float waiver approved by the Stock Exchange under the Listing Rules. For details of the public float waiver, please refer to the section headed "Waivers from Strict Compliance with the Listing Rules" in the Prospectus.

### XXXVII. MATERIAL LITIGATION

As at 31 December 2018, the Group was not involved in any material litigation or arbitration. So far as the Directors are aware, no such litigation or claims are pending or threatened against the Group.

### XXXVIII. AUDIT COMMITTEE

The Group's 2018 annual results and the consolidated financial statements for the year ended 31 December 2018 prepared in accordance with the IFRSs have been reviewed by the audit committee of the Company (the "**Audit Committee**").

### XXXIX. AUDITORS

On 29 June 2018, Ernst & Young and Ernst & Young Hua Ming LLP were appointed as the international and domestic auditors of the Company, respectively for the year 2018 at the Shareholders' meeting of the Company, with a term of one year.

Ernst & Young and Ernst & Young Hua Ming LLP were appointed to audit the financial statements for the year ended 31 December 2018 prepared in accordance with IFRSs and PRC GAAP, respectively.

Ernst & Young and Ernst & Young Hua Ming LLP will retire at the 2018 AGM and the resolutions for the re-appointments of auditors of the Company will be proposed at the 2018 AGM.

## XL. FINANCIAL SUMMARY

A summary of the results and of the assets and liabilities of the Group for the five years ended 31 December 2018 is set out on pages 9 to 11 of this annual report.

### **XLI. CHANGES IN ACCOUNTING POLICIES**

Except for the disclosure in Note 2.2 to the financial statements of this annual report, there were no other changes in accounting policies of the Company during the Reporting Period. Details of the accounting policies are set out in Notes 2 and 3 to the financial statements in this annual report.

### **XLII. MATERIAL CONTRACTS**

On 12 March 2018, the Company renewed the Supplemental Agreement with China Datang, pursuant to which the Company provided China Datang with products and services in relation to thermal power plant contracting business, with an annual cap of RMB1,200 million for 2018. The term of the Supplemental Agreement is from the effective date to 31 December 2018. As China Datang is the Controlling Shareholder, it is therefore a connected person of the Company pursuant to Chapter 14A of the Listing Rules. Accordingly, the Supplemental Agreement and the Transactions constitute continuing connected transactions of the Company under the Listing Rules. Given that one or more of the relevant percentage ratios (as defined in Rule 14.07 of the Listing Rules) of the Transactions calculated with reference to the revised annual cap is more than 5%, the Supplemental Agreement, the Transactions and the revised annual cap are subject to the reporting, announcement and independent Shareholders' approval requirements under Chapter 14A of the Listing Rules. The Supplemental Agreement was approved by independent Shareholders at the extraordinary general meeting held on 27 April 2018. For details, please refer to the announcement of the Company and the circular of extraordinary general meeting dated 12 March 2018.

On 14 June 2018, the Company and Datang Capital entered into the Financial Services Agreement, pursuant to which Datang Capital provided the Company with finance leasing and commercial factoring services. Among which, annual caps of financial leasing service for each year of 2018, 2019 and 2020: maximum daily balance of leasing principal is RMB910 million, annual interest and other payments are RMB90 million; the annual caps of commercial factoring services for each year of 2018, 2019 and 2020 are RMB500 million. The term for the Financial Services Agreement commences from the effective date of agreement until 31 December 2020. China Datang is the Controlling Shareholder while Datang Capital is a wholly owned subsidiary of China Datang, and, therefore, is a connected person of the Company under Chapter 14A of the Listing Rules. Accordingly, the Financial Services Agreement and the Transactions constitute continuing connected transactions of the Company under the Listing Rules. Given that one or more of the relevant percentage ratios (as defined in Rule 14.07 of the Listing Rules) of the transactions calculated with reference to the revised annual cap is more than 5%, the Financial Services Agreement, the transactions and the revised annual cap are subject to the reporting, announcement and independent Shareholders' approval requirements under Chapter 14A of the Listing Rules. In addition, the Financial Services Agreement and relevant transactions contemplated thereunder constitute discloseable transaction under Chapter 14 of the Listing Rules. The Financial Services Agreement was approved by independent Shareholders at the 2017 annual general meeting held on 29 June 2018. For details, please refer to the Company's announcement and supplemental circular of the 2017 annual general meeting dated 14 June 2018.

## Report of Directors (Continued)

The Company and China Datang renewed a trademark licensing agreement on 27 July 2018 (the “**Trademark Licensing Agreement**”), in accordance with which China Datang agreed to grant the Group a non-exclusive license to use any of certain registered trademarks owned by China Datang for purposes of the Group’s production equipment, products, services and profile documents, as well as using such licensed trademarks in the Company’s business names, trade names or domain names. The term of the Trademark Licensing Agreement is three years, which can be renewed upon agreement by the parties. The trademark license is granted by China Datang Corporation at nil consideration.

The Company renewed the Integrated Product and Service Framework Agreement with China Datang on 27 July 2018, which was approved at the general meeting and took effect on 30 November 2018 with a term of three years and can be renewed by agreement by the parties. Either party may terminate this agreement by a three-month prior written notice to the other party. The Company had applied to the Stock Exchange and the Stock Exchange had granted the Company, a waiver from strict compliance with the rules regarding the announcement and independent shareholders’ approval requirements under Chapter 14A of the Listing Rules, on condition that the aggregate amount of non-exempt continuing connected transactions in each of the year of 2019, 2020 and 2021 would not exceed the respective annual caps. For further details, please refer to the announcement and the supplemental circular of extraordinary general meeting issued by the Company dated 15 November 2018.

Save as the above and as disclosed in the section headed “Connected Transactions” in this report of Directors, 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 in 2018.

### **XLIII. EQUITY-LINKED AGREEMENT**

No equity-linked agreement was entered by the Company for the year ended 31 December 2018.

### **XLIV. SIGNIFICANT SUBSEQUENT EVENT**

As of the date of the report of Directors, the Group had no significant events after the Reporting Period that needs to be disclosed.

By order of the Board



**JIN Yaohua**  
Chairman

# Corporate Governance Report

## I. CORPORATE GOVERNANCE PRACTICES

The Company has always been committed to improving corporate governance since its establishment. According to provisions of the Corporate Governance Code (the “**Code**”) set out in Appendix 14 to the Listing Rules, it has established a modern corporate governance structure comprising a number of independently operated bodies including the general meetings, the Board, the Supervisory Committee and the Senior Management in order to provide an effective check and balance. The Company has also adopted the Code as its own corporate governance practices.

As at the Latest Practicable Date, the Company was not involved in any material litigation liable by any Director. Each Director has the necessary qualification and experience required for performing his duty. The Company has purchased liability insurance for the Directors.

As at the Latest Practicable Date, the Company had been in compliance with the principles and code provisions contained in the Code. Corporate governance practices adopted by the Company are outlined as follows:

## II. BOARD

The Board carries out its duties and exercises its powers in accordance with the Articles of Association and in the best interest of the Company and its Shareholders. It reports and is held accountable to the general meetings, and implements the resolutions thereof.

### 1. Composition of the Board

As at the Latest Practicable Date, the Board consisted of nine Directors, including five non-executive Directors, one executive Director and three independent non-executive Directors.

The biographical details of the Directors as at the Latest Practicable Date are set out on pages 86 to 92 of this annual report. There are no relationships (including financial, business, family or other material or relevant relationships) between members of the Board. The structure of the Board is well balanced, with each Director equipped with profound knowledge, experience and expertise relevant to the Company’s business operation and development. All Directors are well aware of their joint and individual responsibilities toward the Shareholders.

As at the Latest Practicable Date, the Board had always been abiding by the requirements of the Listing Rules regarding the appointment of at least three independent non-executive Directors and that independent non-executive Directors shall represent at least one-third of the Board.

The qualifications of the three independent non-executive Directors are in full compliance with the requirements under Rules 3.10(1), 3.10(2), 3.10A and 19A.18(1) of the Listing Rules. In addition, the Company has received annual confirmations dispatched by each independent non-executive Director in accordance with Rule 3.13 of the Listing Rules as to their respective independence. Therefore, the Company is of the view that each independent non-executive Director is independent as provided in the Listing Rules.

# Corporate Governance Report (Continued)

Current members of the Board are listed in the following table:

<b>Name</b>	<b>Position</b>	<b>Date of appointment as the Director</b>
JIN Yaohua	Chairman of the Board and non-executive Director	June 2015
LIU Chuandong	Non-executive Director	June 2015
LIU Guangming	Non-executive Director	April 2016
LI Yi	Non-executive Director	June 2018
DENG Xiandong	Non-executive Director	March 2019
SHEN Zhen	Executive Director and deputy general manager	November 2018
YE Xiang	Independent non-executive Director	June 2015
MAO Zhuanjian	Independent non-executive Director	June 2015
GAO Jiexiang	Independent non-executive Director	April 2016

## 2. Board meetings

According to the Articles of Association, the Board is required to hold Board meetings at least 4 times each year to be convened by the Chairman of the Board. Notices of regular Board meetings shall be dispatched at least 14 days in advance. A quorum for the Board meeting can be formed by half or more than half of the Directors attending the meeting. Directors may attend the Board meeting in person or appoint another Director as his proxy pursuant to certain requirements. Except where a Board meeting is convened to consider connected transactions as provided in the Articles of Association, resolutions of the Board shall be passed by more than half of all the Directors. The secretary of the Board is responsible for preparing and keeping minutes of Board meetings and making sure that such minutes are available for reference by any Director.

During the Reporting Period, the Board held ten meetings, details of which are set out as follows:

- The 22nd meeting of the first session of the Board was held on 12 March 2018, at which, resolution regarding the Supplemental Agreement to the Integrated Product and Service Framework Agreement between the Company and China Datang was considered and approved.
- The 23rd meeting of the first session of the Board was held on 23 March 2018, at which, resolutions, among others, regarding (1) report of the general manager for 2017; (2) report of the Board for 2017; (3) 2017 annual results announcement and the annual report; (4) report on the final financial accounts for 2017; (5) budget report for 2018; (6) profit distribution plan for 2017 and the proposed 2017 final dividend; (7) reappointments of international and domestic auditors for 2018; (8) remuneration report for Directors, Supervisors and Senior Management for 2017; (9) the assessment and incentive for the work of operation management team in the year of 2017; (10) the investment plan for 2018; (11) the commercial banks' comprehensive credit line for 2018; (12) appointment of deputy general managers; and (13) report on the use of proceeds were considered and approved.

## Corporate Governance Report (Continued)

- The 24th meeting of the first session of the Board was held on 25 May 2018, at which, resolution regarding the change of principal place of business in Hong Kong was considered and approved.
- The 25th meeting of the first session of the Board was held on 13 June 2018, at which, resolutions regarding the nomination of candidates for Directors of the second session of the Board and the Financial Services Agreement with Datang Capital was considered and approved.
- The first meeting of the second session of the Board was held on 29 June 2018, at which, resolutions regarding election of the chairman of the second session of the Board of the Company and appointment of members of the special committees of the Board were considered and approved.
- The second meeting of the second session of the Board was held on 20 July 2018, at which, resolutions regarding (1) formulation of the Management Method for Bond Raised Fund of the Company; (2) 2017 ESG Report of the Company; and (3) appointment of deputy general managers of the Company were considered and approved.
- The third meeting of the second session of the Board was held on 27 July 2018, at which, resolutions regarding (1) the renewal of the Trademark Licensing Agreement with China Datang Corporation; (2) the renewal of the Integrated Product and Service Framework Agreement with Datang Group; (3) determination of annual caps under Land Use Rights and Property Leasing Framework Agreement with China Datang Corporation; (4) amendment to the Articles of Association; and (5) amendment of management system of connected transactions and information disclosure were considered and approved.
- The fourth meeting of the second session of the Board was held on 17 August 2018, at which, resolutions regarding (1) 2017 interim financial statements, results announcement and interim report; (2) appointment of deputy general managers; (3) appointment of chief accountant; and (4) appointments of secretary of the Board, Joint Company Secretary and authorized representative of the Company were considered and approved.
- The fifth meeting of the second session of the Board was held on 16 October 2018, at which, resolutions regarding (1) the registration of super short-term commercial paper, short-term commercial paper and medium-terms notes and the issuance of super short-term commercial paper on NAFMI; (2) increase of the commercial banks' comprehensive credit; and (3) adjustment of the investment plan for the year of 2018 were considered and approved.

## Corporate Governance Report (Continued)

- The sixth meeting of the second session of the Board was held on 15 November 2018, at which, resolutions regarding (1) adjustment of the financial budget of the Company for 2018; (2) adjustment of depreciation policy for concession operation, water operation and other operation equipment; and (3) nomination of candidates of the executive Directors were considered and approved.

<b>Name</b>	<b>Position</b>	<b>Attendance/number of meetings held</b>
JIN Yaohua	Chairman of the Board and non-executive Director	10/10
LIU Chuandong	Non-executive Director	10/10
LIANG Yongpan <sup>(1)</sup>	Former non-executive Director	3/4
LIU Guangming <sup>(2)</sup>	Non-executive Director	9/10
LI Yi	Non-executive Director	6/6
DENG Xiandong	Non-executive Director	10/10
LU Shengli <sup>(3)</sup>	Former executive Director and deputy general manager	8/9
SHEN Zhen	Executive Director and deputy general manager	1/1
YE Xiang	Independent non-executive Director	10/10
MAO Zhuanjian	Independent non-executive Director	10/10
GAO Jiexiang	Independent non-executive Director	10/10

*Notes:*

- Mr. LIANG Yongpan did not attend one of the meetings as he was on a business trip and he authorised Mr. LIU Guangming as his proxy to attend and vote at such meeting.
- Mr. LIU Guangming did not attend one of the meetings as he was on a business trip and he authorised Mr. LI Yi as his proxy to attend and vote at such meeting.
- Mr. LU Shengli did not attend one of the meetings as he was on a business trip and he authorised Mr. LIU Wanli as his proxy to attend and vote at such meeting.

# Corporate Governance Report (Continued)

## 3. Powers and responsibilities of the Board and the management

The powers and responsibilities of the Board and the management of the Company are specified in the Articles of Association, providing a sufficient balanced and restrained mechanism for corporate governance and internal controls.

The Board shall be responsible for and shall have general power to manage and develop the Company's business. Pursuant to the Articles of Association, the functions and duties of the Board include, among other things, convening Shareholders' general meetings and reporting the Board's work at the Shareholders' general meetings, implementing the resolutions of Shareholders' general meetings, determining business plans and investment plans and detailed annual business objectives of the Company and financing plans other than by ways of issue of corporate debentures or other securities and of listing, formulating annual budget, final accounts, profit distribution plan and plan for recovery of losses, proposals for increase or reductions of the Company's registered capital and the issue of corporate debentures or other securities and listing.

The Board is responsible for the Company's corporate governance. The Company has formulated its corporate governance policy pursuant to the requirements of Appendix 14 to the Listing Rules. For the year ended 31 December 2018, the Board performed its duties according to the corporate governance policy of the Company. In 2018, the Board mainly reviewed the Company's corporate governance policy and practices, reviewed and monitored the training and continuous professional development of Directors and Senior Management, reviewed and monitored the Company's policy and practices in respect of compliance with laws and regulatory regulations, developed, reviewed and monitored the code of conduct and compliance manual for employees and Directors, and reviewed the Company's compliance with the Code and the disclosures made in the Corporate Governance Report.

All Directors have full and timely access to all relevant information as well as the advice and services of the Joint Company Secretaries, with a view to ensuring that Board procedures and all applicable rules and regulations are followed. Each Director is normally able to seek independent professional advice in appropriate circumstances at the Company's expense, upon making request to the Board.

The management of the Company, led by the general manager of the Company, is responsible for implementing all the resolutions issued by the Board and organising management of the Company's day-to-day operation.

## 4. Chairman and the General Manager

The positions of the Chairman of the Board and the general manager of the Company (i.e. chief executive officer under the terms of the Listing Rules) of the Company are held by different persons in order to ensure independence, accountability of their respective functions and balanced distribution of power and authority between them. Mr. JIN Yaohua and Mr. HOU Guoli served as the Chairman and the general manager of the Company respectively, whose powers and responsibilities were clearly divided.

In 2018, the Chairman of the Board, Mr. JIN Yaohua, who led the Board, decided on the Company's overall development strategies, ensured the effective operation of the Board, performed his bounden duties, and brought all important matters to discussion in a timely manner, ensuring that the Company had in place good corporate governance practices and procedures and that the Board acted in the best interests of the Company and its Shareholders as a whole. In 2018, the general manager of the Company, Mr. DENG Xiandong was mainly responsible for the overall business operation and management of the Company who was resigned in March 2019. On the same date, the Company appointed Mr. HOU Guoli as the general manager of the Company.



## Corporate Governance Report (Continued)

### 5. Appointment, removal and re-election of Directors

As provided in the Articles of Association, Directors are elected by general meetings for a term of three years and are eligible for re-election and re-appointment. The Company has implemented a set of effective procedures regarding the appointment of new Directors in the Articles of Association. The nomination of new Directors is firstly discussed by the nomination committee of the Company (the “**Nomination Committee**”) which then submits its recommendation to the Board, and is subject to approval via the election in general meeting.

The Company has entered into service contracts with all its Directors (including non-executive Directors) for a term commencing from the date of appointment to the date of the next Shareholder’s general meeting for the re-election of Directors and subject to termination in accordance with the terms under respective service contracts.

### 6. Board diversity

The Company believes that the increasing diversity at the Board level is one of essential elements in supporting the attainment of its strategic objectives and its sustainable development, therefore, the Company formulated board diversity policy in October 2016 (the “**Board Diversity Policy**”). While determining the composition of the Board, the Company shall consider the diversity of the Board from various perspectives, including, without limitation, gender, age, cultural and education background, ethnicity, professional experience, skills, knowledge and length of service. The ultimate decision of the Board will be based on merit and contribution that the selected candidates will bring to the Board. All Board appointments will be based on meritocracy, and candidates will be considered against objective criteria, having due regard for the benefits of diversity on the Board. The Nomination Committee will report the composition of the Board at a diversity level in the annual report each year, and monitor the implementation of this policy. The Nomination Committee will review this policy, as appropriate, to ensure its effectiveness. The Nomination Committee will discuss any revisions that may be required, and recommend any such revisions to the Board for consideration and approval.

### 7. Remuneration of Directors

Remuneration of Directors is reviewed by the remuneration and evaluation committee of the Company (the “**Remuneration and Evaluation Committee**”) and determined by the Board based on criteria such as qualification, working experience, working performance, positions and market conditions.

### 8. Training for Directors and Joint Company Secretaries

#### (1) Training for Directors

All Directors always attend to the Directors’ duties and personal integrity, and the business activities and developments of the Company. In 2018, the Directors had been updated on a monthly basis with information relating to the performance, state of affairs and prospects of the Company. In addition, the Company provided Directors with the latest developments in the Listing Rules and other applicable regulatory regulations, to make sure the Directors were able to keep making contribution to the Board with extensive information and appropriate expertise.

## Corporate Governance Report (Continued)

Compliance training for Hong Kong listed company provided by Herbert Smith Freehills LLP, the legal advisor of the Company as to Hong Kong laws, to Directors and management of the Company in May and November 2018 (the “**Compliance Training**”).

In 2018, all Directors attended the continuous professional development programme, developed and refreshed their knowledge and skills to ensure that they continue contributing to the Board with complete information and as needed.

Trainings received by all Directors during the year 2018 are as follows:

<b>Name</b>	<b>Position</b>	<b>Training topics</b>
JIN Yaohua	Chairman of the Board and non-executive Director	Compliance Training
LIU Chuandong	Non-executive Director	Compliance Training
LIANG Yongpan	Former non-executive Director	Compliance Training
LIU Guangming	Non-executive Director	Compliance Training
DENG Xiandong	Non-executive Director	Compliance Training
LU Shengli	Former executive Director and deputy general manager	Compliance Training
LI Yi	Non-executive Director	Compliance Training
SHEN Zhen	Executive Director and deputy general manager	Compliance Training
YE Xiang	Independent non-executive Director	Compliance Training
MAO Zhuanjian	Independent non-executive Director	Compliance Training
GAO Jiaxiang	Independent non-executive Director	Compliance Training

### **(2) Training for Joint Company Secretaries**

During the Reporting Period, the Company appointed Ms. ZHU Mei as the Joint Company Secretary in August 2018. In compliance with Rule 3.29 of the Listing Rules, Ms. ZHU Mei, the Joint Company Secretary, had undertaken relevant profession trainings of not less than 15 hours for the year ended 31 December 2018.

The Company appointed Ms. WONG Sau Ping (associate director of the listing services department of TMF Hong Kong Limited) as one of the Joint Company Secretaries since August 2015. In compliance with Rule 3.29 of the Listing Rules, Ms. WONG Sau Ping had undertaken no less than 15 hours of relevant profession training for the year ended 31 December 2018. Her primary internal contact in the Company is Ms. ZHU Mei.

# Corporate Governance Report (Continued)

## 9. Directors' liability insurance and the permitted indemnity provisions

The Company has always been in strict compliance with the principles and requirements of the Listing Rules. As at 31 December 2018, the Company was not involved in any material litigation liable by any Director. Each Director has the necessary qualification and experience required for performing his duty. The Company has purchased liability insurance for Directors.

The permitted indemnity provisions of the Company are also set out in article 158 of the Articles of Association. The Directors, Supervisors, general manager of the Company and other Senior Management member may be relieved of liability for specific breaches of his duty with the informed consent of Shareholders given at a general meeting except for certain circumstances set out under article 58 of the Articles of Association.

## III. PROFESSIONAL COMMITTEES UNDER THE BOARD

There are five professional committees under the Board, including the Audit Committee, Nomination Committee, Remuneration and Evaluation Committee, strategy committee of the Company (the "**Strategy Committee**") and the investment committee of the Company (the "**Investment Committee**").

### 1. Audit Committee

As at the Latest Practicable Date, the Audit Committee consisted of three Directors, including two independent non-executive Directors, Mr. GAO Jiaxiang and Mr. YE Xiang, and one non-executive Director, Mr. LIU Chuandong. Mr. GAO Jiaxiang currently serves as the chairman of the Audit Committee.

The primary responsibilities of the Audit Committee include, among other things, the following:

- To examine the accounting policies and practices regarding the preparation of financial statements of the Company;
- To monitor the preparation process of periodic financial reports and examine the periodic financial reports, financial results and relevant information disclosed in other announcements;
- To evaluate the effectiveness of the risk management and internal control framework, to consult with the management level regarding the scope and quality of the internal control system, and to ensure that the management level has performed its duties for ensuring the internal control system being effective, including whether the following are sufficient: the resources required, qualifications and experiences of such accounting and financial reporting staff, and the training program and budget to relevant employees;
- To examine the internal investigation results and responses from the management with respect to any and all suspected dishonest acts, non-compliance incidents, absence of internal control or suspected violation of laws, regulations and rules;
- To inspect and monitor the scope, effectiveness and results of the functions of internal examination and verification, to ensure the mutual coordination between the internal and the external auditor(s), and to ensure that the functions of internal examination and verification can be provided with sufficient resources and are in appropriate position within the Group;

## Corporate Governance Report (Continued)

- To investigate the financial and accounting policies and practices of the Group;
- To consult with the external auditor(s) for examining and verifying any recommendations arising from audit works to review such management proposal regarding the status of examination and verification whereas such proposal was proposed by auditor(s) to the management level; to check any material questions regarding the accounting record, financial account or control system put forward to the management level by the accounting firm, the feedback of the management level or other correspondence documents; and to ensure effective communication between the independent accountants and the management;
- To ensure that the Board can timely response to the issues to be put forward in the management proposal prepared by the external auditor(s);
- To understand the internal control and related process implemented by the management and guarantee that such financial reports and statements obtained from the existing financial system are in compliance with the relevant standards and requirements and are examined, verified and approved by the management;
- To check and examine the following arrangements made by the Company: the employees of the Company may secretly raise concerns in relation to possible occurrence of inappropriate actions in respect of financial reporting, internal control or other aspects; to ensure that appropriate arrangements will be made to conduct fair and independent investigation and appropriate action will be adopted regarding such matters; and
- To report the Board regarding the matters concerning the provisions of the Code.

During the Reporting Period, the Audit Committee held two meetings, details of which are set out as follows:

- The third meeting of the first session of the Audit Committee was held on 23 March 2018, at which resolutions, among others, regarding (1) the Company's 2017 annual results announcement and the annual report; (2) report on the final financial accounts of the Company for 2017; (3) final budget report of the Company for 2018; (4) the profit and dividend distribution plan of the Company for 2017; (5) the re-appointments of international and domestic auditors of the Company for 2018; (6) connected transactions of the Company in 2017; (7) the 2017 report on risk management and internal control of the Company; and (8) the 2017 report on corporate governance report of the Company were considered and approved.
- The first meeting of the second session of the Audit Committee was held on 17 August 2018, at which resolutions regarding 2018 interim financial statements, results announcement and interim report of the Company were considered and approved.

# Corporate Governance Report (Continued)

The record of attendance is set out as follows:

<b>Member</b>	<b>Number of attendance/required number of attendance</b>
GAO Jiayang ( <i>Chairman of the Audit Committee</i> )	2/2
YE Xiang	2/2
LIU Chuandong	2/2

## 2. Nomination Committee

(1) The main duties of the Nomination Committee include, among other things, the following:

- To put forward a proposal regarding the structure of the Board, its scale and constitution (including technique, knowledge and experience) to the Board based on the Company's operational activities, asset scale and equity structure;
- To study the standards and procedures for the selection of Directors and Senior Management members, and to put forward relevant proposals to the Board;
- To extensively search for candidates qualified for Directors and Senior Management members;
- To investigate the candidates for Directors and the candidates for Senior Management members and propose relevant proposals;
- To review and make recommendations on the appointment of other Senior Management member that needs to be brought to the attention of the Board;
- To evaluate the independence of independent non-executive Directors; and
- To propose proposals regarding the appointment or re-appointment of Directors, and the succession plan of Directors (and in particular the chairman and the chief executive) to the Board.

## Corporate Governance Report (Continued)

(2) The selection process of Directors and Senior Management is as follows:

- the Nomination Committee shall communicate with relevant departments of the Company and study the demand for Directors and Senior Management and present such information in writing;
- the Nomination Committee may extensively seek for candidates for Directors and Senior Management from the Company, its holding (associate) enterprises and the human resources market;
- the Nomination Committee shall gather information as to the occupation, academic qualifications, title of the post, detailed work experience and all the concurrent posts of the candidates and present such information in writing;
- the nominee shall not be deemed as the candidate for Director or Senior Management unless his/her consent for nomination is obtained;
- the Nomination Committee shall convene a Nomination Committee meeting to review the qualifications of the candidates in accordance with the requirements for Directors and Senior Management;
- the Nomination Committee shall make suggestion to the Board regarding the candidates for the Director and Senior Management position and submit relevant information to the Board ten days prior to the election of new Directors and appointment of new Senior Management; and
- the Nomination Committee shall carry out other follow-up work according to the decision of and feedback from the Board.

(3) Nomination policy:

The terms of paragraphs (1) and (2) above are the main standards and principles to be considered in the nomination of Directors and constitute the nomination policy of the Company. As at the Latest Practicable Date, the Nomination Committee consists of three Directors, including Mr. JIN Yaohua, the chairman and non-executive Director, and two independent non-executive Directors, namely Mr. GAO Jiaxiang and Mr. MAO Zhuanjian. Currently, Mr. JIN Yaohua serves as the chairman of the Nomination Committee.

During the Reporting Period, the Nomination Committee held three meetings, details of which are set out as follows:

## Corporate Governance Report (Continued)

- The fourth meeting of the first session of the Nomination Committee was held on 23 March 2018, at which the resolutions, among others, regarding the composition of the Board for 2017, the implementation of the Board Diversity Policy and the independence of independent non-executive Directors were considered and approved.
- The fifth meeting of the first session of the Nomination Committee was held on 13 June 2018, at which the resolution regarding the nomination of candidates for Directors of the second session of the Board was considered and approved.
- The first meeting of the second session of the Nomination Committee was held on 15 November 2018, at which the resolution regarding the nomination of candidates for executive Directors of the Company was considered and approved.

The record of attendance is set out as follows:

<b>Member</b>	<b>Number of attendance/required number of attendance</b>
JIN Yaohua ( <i>Chairman of the Nomination Committee</i> )	3/3
GAO Jiayang	3/3
MAO Zhuanjian	3/3

### 3. Remuneration and Evaluation Committee

As at the Latest Practicable Date, the Remuneration and Evaluation Committee consisted of three Directors, including two independent non-executive Directors, Mr. YE Xiang and Mr. MAO Zhuanjian, and one non-executive Director, Mr. DENG Xiandong. Mr. YE Xiang currently serves as the chairman of the Remuneration and Evaluation Committee.

The main duties of the Remuneration and Evaluation Committee include, among other things, the following:

- With respect to the policy and structure of remuneration regarding the Directors and Senior Management members and the establishment of such official and transparent procedures for formulating such remuneration policies, to propose a proposal to the Board;
- To investigate and approve the proposal on the remuneration of the Senior Management based on the corporate principles and goals set by the Board;
- To determine the specific remuneration of all executive Directors and Senior Management members, including but not limited to basic salary, warrant and non-monetary interests, pension and bonus, and indemnified amount (including the indemnification for the loss or termination of position or appointment);

## Corporate Governance Report (Continued)

- To propose proposals to the Board regarding the remuneration of non-executive Directors;
- To take consideration of the remuneration paid by similar companies, such time required to be spent by the Directors, scope of duties of the Directors, employment conditions for other positions within the Group, and whether the remuneration shall be determined based on the performance thereof;
- To investigate and approve such compensation required to be paid to executive Directors and Senior Management members due to the loss or termination of their positions or appointment, in order to ensure that such compensation shall be determined pursuant to the relevant contractual terms. Should such determination fails to be made pursuant to the relevant contractual terms, such compensation should be fair and reasonable and should not be too much;
- To investigate and approve such compensation arrangements involving the termination of employment or dismissal of the relevant Directors due to the inappropriate act of such Directors, in order to ensure that such arrangements shall be determined pursuant to the relevant contractual terms. Should such determination fails to be made pursuant to the relevant contractual terms, such relevant compensation should be fair and appropriate;
- To ensure that no Directors nor any associates would determine their own remuneration by themselves;
- To investigate the performance of duties by Directors (non-independent Directors) and Senior Management members and evaluate the annual performance appraisal regarding such Directors and Senior Management officers; and
- To study Share incentive schemes.

During the Reporting Period, the Remuneration and Evaluation Committee held one meeting, details of which are set out as follows:

- The second meeting of the first session of the Remuneration and Evaluation Committee was held on 23 March 2018, at which the resolutions, among others, regarding (1) the assessment and incentive for the work of operation management team in the year of 2017, and (2) the remuneration policy of Directors and Senior Management were considered and approved.

The record of attendance is set out as follows:

<b>Member</b>	<b>Number of attendance/required number of attendance</b>
YE Xiang ( <i>Chairman of the Remuneration and Evaluation Committee</i> )	1/1
MAO Zhuanjian	1/1
DENG Xiandong	1/1



# Corporate Governance Report (Continued)

## 4. Strategy Committee

As at the Latest Practicable Date, the Strategy Committee consisted of three non-executive Directors, including Mr. DENG Xiandong, Mr. LIU Guangming and Mr. LI Yi (appointed in June 2018). Mr. DENG Xiandong currently serves as the chairman of the Strategy Committee.

The main duties of the Strategy Committee include, among other things, the following:

- To study the long-term development strategy and planning and propose relevant proposals of the Company;
- To study the material investment financing proposals required to be approved by the Board pursuant to the Articles of Association and to propose relevant proposals;
- To study such material capital operation and asset operational projects that are required to be approved by the Board pursuant to the Articles of Association and to propose relevant proposals;
- To study the material issues that may impact the Company's development and propose relevant proposals; and
- To carry out examination and checking over the above-mentioned items.

During the Reporting Period, the Strategy Committee held one meeting, details of which are set out as follows:

- The second meeting of the first session of the Strategy Committee was held on 23 March 2018, at which the resolution regarding the investment plan of the Company for the year of 2018 was considered and approved.

The record of attendance is set out as follows:

<b>Member</b>	<b>Number of attendance/required number of attendance</b>
DENG Xiandong ( <i>Chairman of the Strategy Committee</i> )	1/1
LIANG Yongpan <sup>(1)</sup>	0/1
LIU Guangming	1/1
LI Yi	0/0

*Note:*

- (1) Mr. Liang Yongpan did not attend one of the meetings as he was on a business trip and he authorised Mr. LIU Guangming as his proxy to attend and vote at the meeting.

# Corporate Governance Report (Continued)

## 5. Investment Committee

As at the Latest Practicable Date, the Investment Committee consisted of three Directors, including two independent non-executive Directors, Mr. MAO Zhuanjian and Mr. YE Xiang, and one executive Director, Mr. DENG Xiandong. Mr. MAO Zhuanjian currently serves as the chairman of the Investment Committee.

The main duties of the Investment Committee include, among other things, the following:

- To conduct research on and make recommendation for the annual investment plan of the Company;
- To consider and approve the investment strategies, investment risk management system, investment project assessment system and other relevant systems or policies in relation to relevant investment management of the Company;
- To consider and approve and make decision on the investment projects within the scope as authorized by the Board;
- To conduct research on and make recommendation for significant investment projects subject to the approval of the Board and the general meeting as required by the Articles of Association; and
- To monitor the implementation of investment projects and report to the Board.

During the Reporting Period, the Investment Committee held one meeting, details of which are set out as follows:

- The second meeting of the first session of the Investment Committee was held on 23 March 2018, at which the resolution regarding the investment plan of the Company for the year of 2018 was considered and approved.

The record of attendance is set out as follows:

<b>Member</b>	<b>Number of attendance/required number of attendance</b>
MAO Zhuanjian <i>(Chairman of the Investment Committee)</i>	1/1
YE Xiang	1/1
DENG Xiandong	1/1

# Corporate Governance Report (Continued)

## IV. SUPERVISORY COMMITTEE

As at the Latest Practicable Date, the Supervisory Committee comprised three Supervisors, one of whom is an employee representative Supervisor, including Mr. WANG Yuanchun, Mr. MIAO Shihai and Mr. CHEN Li. Mr. WANG Yuanchun currently serves as the chairman of the Supervisory Committee, Mr. MIAO Shihai is the supervisor, who replaced the position of Mr. LIU Liming, former supervisor, since 29 June 2018, and Mr. CHEN Li is the employee representative Supervisor, who replaced Mr. LIU Jianxiang, former employee representative Supervisor, since 31 January 2018.

The functions and duties of the Supervisory Committee include but not limited to reviewing the Company's financial reports, supervising the performance of the Company's duties of the Directors and Senior Management and proposing the dismissal of the Directors and Senior Management who are in breach of laws and regulations, the Articles of Association or the resolutions of the general meeting, requiring Directors, the general manager of the Company and other Senior Management to rectify any actions which impair the interests of the Company, proposing to convene the extraordinary general meetings, convening and presiding over the general meeting in the event that the Board fails to perform its duties to convene and preside over the Shareholders' general meetings, putting forward proposals to the Shareholders' general meetings and reviewing the periodic report formulated by the Board and putting forward written opinions on audit.

Each term of office of a Supervisor is three years and he/she may serve consecutive terms if re-elected. A Supervisor shall continue to perform his/her duties in accordance with the laws, administrative regulations and the Articles of Association until a duly re-elected Supervisor takes office, if re-election is not conducted in a timely manner upon the expiry of his/her term of office or if the resignation of Supervisors results in the number of Supervisors being less than the quorum.

During the Reporting Period, the Supervisory Committee held three meetings, details of which are set out as follows:

- The fifth meeting of the first session of the Supervisory Committee was held on 23 March 2018, at which resolutions, among others, regarding (1) the report of the Supervisory Committee for 2017; (2) the Company's 2017 annual results announcement and the annual report; (3) report on the final financial accounts of the Company for 2017; (4) final budget report of the Company for 2018; (5) the profit and dividend distribution plan of the Company for 2017; (6) the re-appointments of international and domestic auditors of the Company for 2018; (7) the assessment and incentive for the work of operation management team in 2017; (8) connected transactions of the Company in 2017; (9) the 2017 report on risk management and internal control of the Company; (10) report on the use of proceeds of the Company; and (11) the remuneration of Supervisors for 2018 were considered and approved.
- The sixth meeting of the first session of the Supervisory Committee was held on 13 June 2018, resolutions regarding the nomination of candidates for supervisor of the second session of the Supervisory Committee of the Company was considered and approved.
- The first meeting of the second session of the Supervisory Committee was held on 29 June 2018, resolutions regarding the election of the chairman of the second session of the Supervisory Committee of the Company was considered and approved.

# Corporate Governance Report (Continued)

The record of attendance is set out as follows:

<b>Member</b>	<b>Number of attendance/required number of attendance</b>
WANG Yuanchun ( <i>Chairman of the Supervisory Committee</i> ) <sup>(1)</sup>	1/3
MIAO Shihai ( <i>Appointed in June 2018</i> )	1/1
CHEN Li ( <i>Appointed in January 2018</i> ) <sup>(2)</sup>	3/3
LIU Jianxiang ( <i>Resigned in January 2018</i> ) <sup>(3)</sup>	0/0
LIU Liming ( <i>Resigned in June 2018</i> ) <sup>(4)</sup>	2/2

*Notes:*

- (1) Mr. WANG Yuanchun did not attend two of the meetings as he was on a business trip and he authorised Mr. LIU Liming and Mr. MIAO Shihai, respectively, as his proxy to attend and vote at such meeting.
- (2) Mr. CHEN Li has been appointed as an employee representative Supervisor with effect from 31 January 2018, therefore, he only attended the Supervisory Committee meeting held after his appointment. For details, please refer to the announcement of the Company dated 31 January 2018 with respect to change of employee representative Supervisor.
- (3) Mr. LIU Jianxiang resigned as an employee representative Supervisor with effect from 31 January 2018. For details, please refer to the announcement of the Company dated 31 January 2018 with respect to change of employee representative Supervisor.
- (4) Mr. LIU Liming resigned as an employee representative Supervisor with effect from 29 June 2018. For details, please refer to the announcement of the Company dated 29 June 2018 with respect to change of employee representative Supervisor.

## V. DIRECTORS' RESPONSIBILITY FOR THE FINANCIAL STATEMENTS

The Board has acknowledged its responsibility for preparing the financial statements of the Group for the year ended 31 December 2018. The Directors consider that the Group has adequate resources to continue in business for the foreseeable future, and are not aware of material uncertainties that may cast significant doubt on the Company's ability to continue as a going concern. The Board is responsible for presenting a clear and understandable assessment of the annual and interim reports, inside information, price sensitive information and other disclosures as required under the Listing Rules and other regulatory requirements. The management of the Company has provided such explanation and information to the Board as necessary to enable the Board to make an assessment of the financial information and status of the Group before giving its approval. The Group is not exposed to any material uncertainty that may exert significant impact on the Group's ability to continue as a going concern.

## Corporate Governance Report (Continued)

### VI. COMPLIANCE WITH THE MODEL CODE FOR DEALING IN THE SECURITIES OF THE COMPANY BY ITS DIRECTORS, SUPERVISORS AND RELEVANT EMPLOYEES

The Group has adopted the Model Code for Securities Transactions by Directors of Listed Issuers (the “**Model Code**”) set out in Appendix 10 to the Listing Rules as the code of conduct for dealing in the securities of the Company by its Directors, Supervisors and relevant employees of the Company (as defined in the Model Code). According to the specific enquiries of all Directors and Supervisors of the Company, the Directors and Supervisors of the Company confirmed that they had strictly complied with the standard set out in the Model Code for the year ended 31 December 2018. The Board will examine the corporate governance practices and operation of the Group from time to time to ensure that the Group is in compliance with relevant requirements under the Listing Rules and that the Shareholders’ interests are safeguarded.

### VII. RISK MANAGEMENT AND INTERNAL CONTROL

The Company has established complete and stable risk management and internal control systems, and has formulated a series of rules to ensure that the Company’s risk management and internal control work are institutionalized and systematic. The Company has 13 functional departments responsible for works including financial operation and monitoring, risk management, internal audit and anti-fraud. The Company has set up the comprehensive risk management leading group and office, which are responsible for risk management and internal control related work. The Company also establishes full-time risk management positions. The general manager of the Company holds the post of the group leader.

The Company and its subsidiaries carry out risk assessment at the beginning of each year, set risk prevention and control objectives, revise risk assessment standards, collect risk management information, identify key risk sources, assess risk levels, develop risk prevention strategies and improve measures for significant risks, and carry out by the functional departments. The Company focuses on the prior control of major risks, and actively carried out comprehensive risk management. To strengthen internal control, the Company establishes and improves the normalization mechanism of risk assessment, and establishes special risk assessment system for important matters such as significant domestic and foreign investment, major capital operation and management matters and large amount of capital use. The Company has formulated the “Information Disclosure Management System”, which stipulates the duties and obligations of various departments in the process of internal information processing, the procedures for the disclosure of periodic reports and interim reports, and the confidential measures and corresponding responsibilities.

The Board is responsible for maintaining an adequate risk management and internal control systems to safeguard Shareholders’ investments and Company’s assets and with the support of the Audit Committee, reviewing the effectiveness of such systems on an annual basis. The risk management and internal control systems are designed to identify, assess and report on potential risks and implement control measures, to mitigate rather than to completely eliminate the risks associated with achieving our business objectives. These systems provide a reasonable but not absolute assurance against material misstatement or loss.

During the Reporting Period, the Board, through the Audit Committee, reviewed the effectiveness of the risk management and internal control systems of the Group, including financial control, operation control, compliance control, and risk management systems, and was not aware of any material problems or any material mistakes. The Board believes that the current monitoring systems of the Company are effective and that the qualifications and experience of the staff, performing accounting and financial reporting functions and the training programmes of the Company as well as the experiences and resources for setting the budget of the Company are adequate.

## Corporate Governance Report (Continued)

### VIII. AUDITORS' REMUNERATION

Ernst & Young and Ernst & Young Hua Ming LLP (collectively, "Ernst & Young") were appointed as international and domestic auditors of the Company to audit the financial statements of the Company for the year ended 31 December 2018 prepared in accordance with IFRSs and the PRC GAAP, respectively. Aggregate fees in respect of audit and audit-related services provided by Ernst & Young payable by the Company for the year ended 31 December 2018 were RMB4.24 million.

During the year of 2018, non-audit services provided by Ernst & Young include finance advisory services on accounting and reporting policies at a charge of RMB1.08 million.

### IX. REMUNERATION OF DIRECTORS, SUPERVISORS AND SENIOR MANAGEMENT

A formal and transparent procedure for fixing the remuneration packages of individual Directors, Supervisors and Senior Management is in place. The Remuneration and Evaluation Committee is responsible for formulating and reviewing the remuneration policies and plans of the Directors, Supervisors, the general manager of the Company and other Senior Management and shall be accountable to the Board. Details of the remuneration for Directors, Supervisors and top five employees in respect of remuneration are set out in Notes 8, 9 and 34(d) to the financial statements in this annual report. For the year ended 31 December 2018, the scope of remuneration for the Senior Management is set out below:

<b>Scope of remuneration</b> <i>(RMB'000)</i>	<b>Number of member of Senior Management</b>
0-500	8
500-1,000	7

*Note:* Numbers disclosed above includes the Senior Management and those who are executive Directors and Supervisors.

# Corporate Governance Report (Continued)

## X. SHAREHOLDERS' GENERAL MEETING

During the Reporting Period, the Company held a total of three Shareholders' general meetings, with attendance of Directors as follows:

Name	Position	Number of attendance/ number of the meeting
JIN Yaohua	Chairman of the Board and non-executive Director	3/3
LIU Chuandong <sup>(1)</sup>	Non-executive Director	2/3
LIU Guangming <sup>(2)</sup>	Non-executive Director	2/3
LI Yi	Non-executive Director	2/2
DENG Xiandong	Non-executive Director	3/3
SHEN Zhen	Executive Director	1/1
YE Xiang	Independent non-executive Director	3/3
MAO Zhuanjian	Independent non-executive Director	3/3
GAO Jiayang	Independent non-executive Director	3/3
LIANG Yongpan <sup>(3)</sup>	Former non-executive Director	0/1
LU Shengli	Executive Director and deputy general manager	3/3

Note:

- (1) Mr. LIU Chuandong did not attend one of the meetings as he was on a business trip and he authorised Mr. LI Yi as his proxy to attend and vote at such meeting.
- (2) Mr. LIU Guangming did not attend one of the meetings as he was on a business trip and he authorised Mr. LI Yi as his proxy to attend and vote at such meeting.
- (3) Mr. LIANG Yongpan did not attend one of the meetings as he was on a business trip and he authorised Mr. LIU Guangming as his proxy to attend and vote at such meeting.

# Corporate Governance Report (Continued)

## XI. COMMUNICATION WITH SHAREHOLDERS

The Company highly appreciated Shareholders' opinions and advice, actively organised various investor relations activities to maintain connections with Shareholders and made timely responses to the reasonable requests of Shareholders.

The Company has also adopted a set of dividend policy, and the actual dividends declared and paid to Shareholders of the Company depend on a series of factors. For specifics of the dividend policy, please refer to the Company's prospectus dated 3 November 2016.

### 1. Shareholders' rights

The Board is committed to communicating with Shareholders and makes disclosure in due course about the Company's major developments to Shareholders and investors of the Company. The general meeting of the Company provides Shareholders and the Board with good communication opportunities. Notices on convening general meetings are dispatched to all Shareholders at least 45 clear days prior to the general meeting.

The Company's general meetings include annual general meetings, which are held once each year within 6 months from the close of the preceding financial year, and extraordinary general meetings, which are convened in compliance with the Articles of Association and whenever the Board considers appropriate. Shareholders, individually or jointly, holding a total of more than 10% (inclusive) of the Company's issued and outstanding Shares carrying voting rights are entitled to requests in writing for convening an extraordinary general meeting. And such meetings shall be held within 2 months after the requisition is presented.

Shareholders who wish to put forward proposals during the general meeting may raise their hands and speak in order of registration at any time after the resolutions to be considered at the meeting are announced. The Directors, Supervisors and members of Senior Management shall respond to the questions and suggestions from Shareholders.

The Chairman and the chairmen of all committees under the Board (or, in whose absence, other members of the committees) will answer question(s) at the general meetings. Pursuant to the Listing Rules, any vote of Shareholders at a general meeting must be taken by poll. Poll results are deemed resolutions of the meeting.



## Corporate Governance Report (Continued)

The Board encourages Shareholders to attend general meetings to communicate directly concern(s) they may have with the Board or the management of the Company. Shareholders holding 3% or more of the Company's Shares with voting right have the right to put up ad hoc proposals in writing to the Company, and the Company shall include such ad hoc proposals into the agenda for such general meeting if they are matters falling within the functions and powers of general meeting. The ad hoc proposals raised by Shareholders shall satisfy the following requirements: (i) free of conflicts with the provisions of laws and regulations, and fall into the terms of reference of the general meeting; (ii) with definite topics to discuss and specific matters to resolve; and (iii) submitted or served to the Board in writing 10 days prior to the date of the general meeting.

Detailed voting procedures and resolutions being voted on by way of poll are contained in the circulars dispatched to Shareholders.

### **2. Shareholders' inquiries**

If you have any query in connection with your shareholdings, including Shares transfer, change of address or wish to report loss of Shares or dividend warrant, please write to or contact the Company's Hong Kong share registrar, Computershare Hong Kong Investor Services Limited, at:

Shops 1712–1716, 17th Floor,  
Hopewell Centre, 183 Queen's Road East,  
Wanchai, Hong Kong  
Tel: (852) 2862-8555  
Fax: (852) 2865-0990  
Website: [www.computershare.com.hk](http://www.computershare.com.hk)

### **3. Investor relations and communications**

The Company set up a website at [www.dteg.com.cn](http://www.dteg.com.cn), as a channel to promote communication, publishing announcements, financial information and other relevant information of the Company. Shareholders are welcome to make enquiries directly to the Company at its principal place of business in Hong Kong. The Company will deal with all enquiries in a timely and appropriate manner. The primary contact of the Company is Mr. WANG Xiaofeng at (email: [ir@dteg.com.cn](mailto:ir@dteg.com.cn) or tel: +86 10 5838 9858).

# Corporate Governance Report (Continued)

## **XII. CHANGE OF CONSTITUTIONAL DOCUMENTS**

On 30 November 2018, the Company passed a resolution at the extraordinary general meeting to make amendments to the then applicable Articles of Association. The aforementioned version of Articles of Association has been published on the website of the Stock Exchange. Save for the above, the Company has not made any significant changes to the Articles of Association during the Reporting Period.

## **XIII. SIGNIFICANT SUBSEQUENT EVENT**

The significant subsequent events occurred after 31 December 2018 are set out in Note 38 to the financial statement in this annual report.

# Investor Relations

## I. EVENTS RELATING TO INVESTOR RELATIONS IN 2018

### 1. Investors' routine visits

During the Reporting Period, the Group always gave detailed answers to the queries raised by investors and analysts in compliance with the information disclosure rules. As at the end of 2018, the Company had adequate communications and exchange of ideas with investors and analysts from a number of institutions via meetings, telephone calls, emails and WeChat.

### 2. Participation in investment summits

During the Reporting Period, the Group actively participated in major summits and investment forums in the PRC and Hong Kong organised by world-famous investment banks, at which we had one-on-one or group meetings to promote in-depth communication with important global investors.

### 3. Results briefings

During the Reporting Period, the Company published its 2017 annual results and 2018 interim results. In March 2018, the management of the Company visited Hong Kong to hold a road show for 2017 annual results, organised a press conference, and eleven one-on-one meetings with investors. In August 2018, the management of the Company visited Hong Kong to hold a road show for 2018 interim results, organised a press conference, and seventeen one-on-one meetings with investors.

## II. OUTLOOK FOR MANAGEMENT OF INVESTOR RELATIONS IN 2019

In 2019, the Company will focus more on demands of investors and analysts, pay close attention to important policies of the environmental protection and energy conservation industry, timely make public disclosable information and continuously improve the timeliness and completeness of data disclosure to provide the public with timely access to complete business information.

# Report of the Supervisory Committee

In 2018, all members of the Supervisory Committee have earnestly performed their supervisory functions to safeguard the rights and interests of the Group and the Shareholders in accordance with the Company Law, the Articles of Associations, the Rules of Procedures of the Supervisory Committee and the relevant provisions in the Listing Rules.

## I. CHANGES IN COMPOSITION

In January 2018, Mr. LIU Jianxiang resigned as an employee representative Supervisor of the Company (the “**Employee Representative Supervisor**”) with effect from 31 January 2018 due to work adjustment. Mr. CHEN Li has been elected and appointed as the new Employee Representative Supervisor at the employee representative meeting of the Company held on 31 January 2018 to replace Mr. LIU Jianxiang and as a member of the Supervisory Committee, with effect from 31 January 2018. For details, please refer to the announcement of the Company dated 31 January 2018 with respect to resignation and appointment of Employee Representative Supervisor.

In June 2018, Mr. LIU Liming resigned as Supervisor with effect from 29 June 2018 due to work adjustment. Mr. MIAO Shihai has been elected and appointed as Supervisor at the general meeting of the Company held on 29 June 2018 to replace Mr. LIU Liming and as a member of the Supervisory Committee, with effect from 29 June 2018. For details, please refer to the announcement of the Company dated 29 June 2018 with respect to resignation and appointment of Supervisors.

## II. MEETINGS OF THE SUPERVISORY COMMITTEE

During the Reporting Period and as at the Latest Practicable Date, the Supervisory Committee held three meetings, details of which are set out as follows:

- The fifth meeting of the first session of the Supervisory Committee was held on 23 March 2018, at which resolutions, among others, regarding (1) the report of the Supervisory Committee for 2017; (2) the Company’s 2017 annual results announcement and the annual report; (3) report on the final financial accounts of the Company for 2017; (4) final budget report of the Company for 2018; (5) the profit and dividend distribution plan of the Company for 2017; (6) the re-appointments of international and domestic auditors of the Company for 2018; (7) the assessment and incentive for the work of operation management team in 2017; (8) connected transactions of the Company in 2017; (9) the 2017 report on risk management and internal control of the Company; (10) report on the use of proceeds of the Company; and (11) the remuneration of Supervisors for 2018 were considered and approved.
- The sixth meeting of the first session of the Supervisory Committee was held on 13 June 2018, resolutions regarding the nomination of candidates for Supervisor of the second session of the Supervisory Committee of the Company was considered and approved.
- The first meeting of the second session of the Supervisory Committee was held on 29 June 2018, resolutions regarding the election of the chairman of the second session of the Supervisory Committee of the Company was considered and approved.

# Report of the Supervisory Committee (Continued)

## III. PRINCIPAL INSPECTION AND SUPERVISION WORK OF THE SUPERVISORY COMMITTEE IN 2018

1. Members of the Supervisory Committee carried out supervision and inspection of the financial position of the Company and its risk management and internal control systems such as the financial management system, including regular inspections of the financial reports and financial budgets and irregular reviews of accounting documents and books of the Company.
2. Members of the Supervisory Committee attended all general meetings and Board meetings without voting rights during the Reporting Period, exercising supervision in respect of the lawfulness and compliance of the procedures of the matters considered by the Board meetings.
3. The Supervisory Committee made no objection to the reports and motions tabled at the general meetings and were convinced that the Board had faithfully implemented the resolutions approved by the general meetings.

## IV. INDEPENDENT OPINIONS ISSUED BY THE SUPERVISORY COMMITTEE ON RELEVANT MATTERS

### 1. Operation and management of the Company

During the Reporting Period, the Company maintained a stable development in its general operation, and achieved a breakthrough in the business segments such as denitrification catalysts and water treatment. The management of the Company attached great importance to safety management and ensured smooth situation in production safety; actively promoted technological innovation and achieved a series of research outcomes; vigorously developed external markets and expanded client bases significantly; continuously improved the level of management in core business. The management of the Company faithfully fulfilled their duties and responsibilities as stipulated in the Articles of Association and earnestly implemented the resolutions approved by the Board.

### 2. Financial matters of the Company

Members of the Supervisory Committee monitored and examined the financial management system and the financial condition and reviewed relevant financial information of the Company. Upon examination, the Supervisory Committee concluded that the Company had strictly complied with the relevant financial laws, regulations and financial policies, and that the financial management system was sound and implemented effectively; the accounting treatment was in line with the consistency principles; and the Company's financial reports gave an objective and fair view of the financial position and operating results of the Company.

The Supervisory Committee reviewed the standard and unmodified audit opinion issued by Ernst & Young in respect of the consolidated financial statements of the Group for the year ended 31 December 2018 prepared in accordance with IFRSs, and raised no objection to such reports.

## Report of the Supervisory Committee (Continued)

### 3. Connected transactions

The Supervisory Committee reviewed the connected transactions between the Group and its respective connected persons during the Reporting Period, and was of the opinion that all the connected transactions complied with the relevant requirements of the Stock Exchange and other applicable laws, and that the pricing of the connected transactions was reasonable, open and fair and there was not any matter prejudicial to the interests of the Company or Shareholders as a whole.

### 4. Implementation of the resolutions of general meetings

The Supervisory Committee considered that the Board earnestly implemented the resolutions approved by the general meetings; the Company further perfected and improved various risk management and internal control mechanisms; that the Company disclosed significant information about the Company in a timely manner pursuant to the securities regulatory requirements such that the information was disclosed in a regulated manner and the securities trading system for the informed parties of insider information was conducted well; that the Directors and Senior Management were able to implement conscientiously and thoroughly relevant laws and regulations, the Articles of Association and the resolutions of the general meetings and the Board during the execution of the duties of the Company in a faithful, pioneering and aggressive manner; and that no Directors or Senior Management were found to have acts which violated laws, regulations or the Articles of Association or harmed the interests of the Company and the rights or interests of Shareholders during the execution of their duties.

### 5. Internal control of the Company

The Supervisory Committee made a special explanation of the Company's internal control. It was of the view that the Company abode by the basic principle of internal control based on its development strategies and regulatory requirements, and further improved the risk management and internal control systems in line with its own actual situation to so that the Company was able to give a reasonable assurance that the internal control objective would be achieved. In addition, the Company has established a complete internal control organizational structure to ensure that its risk management and internal control systems will be monitored and implemented effectively and its control and management capability will continue to increase.

### 6. Use of proceeds by the Company

The Supervisory Committee monitored the utilization of the proceeds by the Company. It was of the view that the Company was able to manage and utilize the proceeds in accordance with the applicable laws and regulations as well as the commitments made by it in the Prospectus. The Supervisory Committee will continue to oversee and inspect the utilization of the proceeds.

By order of the Supervisory Committee  
**Wang Yuanchun**  
*Chairman of the Supervisory Committee*



# Profile of Directors, Supervisors and Senior Management

## I. NON-EXECUTIVE DIRECTORS

### Mr. Jin Yaohua (金耀華)

aged 58, is the chairman of the Board and a non-executive Director. Mr. Jin had approximately 20 years of working experience in the power industry. Before joining the Company, Mr. Jin successively served as the technician, engineer, deputy director, director, and secretary of Communist Party Branch at the Thermal Workshop of Huabei Power (華北電力試驗所) from August 1982 to January 1994. He then worked in the Science Research Institute of Huabei Power (華北電力科學研究院) serving successively as the deputy secretary of the Communist Party Committee, vice dean and deputy secretary from January 1994 to September 1996. Mr. Jin was the secretary of the Communist Party Committee and deputy manager of Zhangjiakou Power Plant (張家口發電廠) from September 1996 to February 1998; and he was the manager of Qinghuangdao Thermal Power Plant (秦皇島熱電廠) from February 1998 to November 1999. Between November 1999 and January 2003, Mr. Jin successively served as the deputy chief engineer, chief engineer and deputy general manager of Beijing Datang Power Generation Co., Ltd. (北京大唐發電股份有限公司). Mr. Jin held various positions at China Datang from January 2003 to August 2011, including the director of the safety production department, deputy chief engineer and chief engineer; and he has been serving as the deputy general manager of China Datang commencing from August 2010. From April 2010 to August 2014, Mr. Jin served as the director of Datang Huayin (a company listed on the Shanghai Stock Exchange, stock code: 600744). Mr. Jin obtained a bachelor's degree in thermal surveying and automation of power plants at the School of Water Resources and Electric Power of Wuhan University (武漢水利電力學院) in 1982. Mr. Jin was recognized as a senior engineer by the North China Electric Power Administration Bureau (華北電業管理局) in October 1992.

## Profile of Directors, Supervisors and Senior Management (Continued)

### **Mr. Liu Chuandong (劉傳東)**

aged 56, is a non-executive Director. Mr. Liu had more than 30 years of experience in financial management in the power industry. Prior to joining the Company, Mr. Liu served successively as the person in charge of the Youth League Committee, deputy director (in charge) of the finance department, deputy chief accountant and head of the finance department of Shandong Jining Power Plant (山東濟寧發電廠) from July 1981 to March 1996. From March 1996 to November 1997, Mr. Liu worked as the head of the accounting and audit division of the finance department and the deputy director of the finance department at Shandong Electric Power Industry Bureau (山東省電力工業局). He was the chief accountant at Jinan Yingda International Trust Co., Ltd. (濟南英大國際信託投資公司) from November 1997 to September 1999; the chief accountant and member of the Communist Party Committee of Shandong Power Generation Company (山東電力發電公司) from September 1999 to December 2001; and the deputy chief accountant at Shandong Branch of Huaneng Power International Inc. (華能國際電力股份有限公司山東分公司) from December 2001 to May 2003. During the periods from May 2003 to June 2006, July 2008 to April 2011, and May 2012 to January 2014, Mr. Liu successively served as the senior officer of property and capital at the finance and property management department, deputy director of fund settlement and management center, deputy director of finance and property management department, and director of fund settlement and management center at China Power Investment Corporation (中國電力投資集團公司). Mr. Liu worked for CPI Financial Co., Ltd. (中電投財務有限公司) during the periods from June 2006 to July 2008 and from April 2011 to January 2014, serving successively as the deputy general manager, member of the Communist Party Committee, deputy director of fund settlement and management center, general manager and deputy secretary of the Communist Party Committee. Mr. Liu was a member of the Communist Party Committee of CPI Ronghe Holdings Investment Group Company (中電投融和控股投資有限公司) from December 2011 to January 2014; the general manager and secretary of the Communist Party Committee of China Datang Finance Co., Ltd. (中國大唐集團財務有限公司) from January 2014 to May 2014; and the director of the financial management department of China Datang from May 2014 to November 2015. Mr. Liu has been the secretary of the Communist Party Committee of Capital Holding since May 2014 and the chief accountant and member of the Communist Party Community of China Datang from November 2015 to December 2018. Since December 2018, Mr. Liu has been serving as a member of the Communist Party Committee and chief accountant of China Aerospace Science & Industry Corp (中國航天科工集團有限公司). In addition, Mr. Liu also holds directorships in other listed companies. He served as a director of Datang Huayin (a company listed on the Shanghai Stock Exchange, stock code: 600744) from June 2015 to June 2016. Mr. Liu has been serving as a non-executive director of Datang International Power Generation Co., Ltd. (a company listed on the Shanghai Stock Exchange, stock code: 601991; a company listed on the Stock Exchange, stock code: 991) since July 2016. Mr. Liu graduated from Shandong Electric Power School (山東電力學校) in 1981, majoring in thermal power equipment in power plants. He further graduated from the Central Party School of the Communist Party of China (中央黨校) in 2001, majoring in economics. He was also accredited as a senior accountant by the Power Industry Bureau of Shandong Province (山東省電力工業局) in February 1998.



## Profile of Directors, Supervisors and Senior Management (Continued)

### **Mr. Liu Guangming (劉光明)**

aged 47, is a non-executive Director. Mr. Liu has over 10 years of extensive experience in the power industry. Before joining the Company, Mr. Liu worked in China Huadian Corporation serving successively as head of directors and supervisors office and head of 2nd division of cadre management of Human Resources Department from July 2005 to February 2008. Between February 2008 and June 2010, Mr. Liu served as an assistant general manager of China Huadian Corporation Capital Holdings Limited (中國華電集團資本控股公司). He held various positions at China Huadian Corporation Finance Company Limited (中國華電集團財務有限公司) from June 2010 to May 2014, including a deputy general manager and a party member. From May 2014 to March 2016, he served as the general manager and deputy secretary of Communist Party Committee at China Datang Finance Co., Ltd. (中國大唐集團財務有限公司). Since March 2016, he has been serving as the head of capital operation and assets management department of China Datang. Since March 2018, he served as the chief economist of China Datang. In addition, Mr. Liu also holds directorships in other listed companies. He has served as a director of Datang Guiguan (a company listed on the Shanghai Stock Exchange, stock code: 600236) since June 2016, a director of Datang Huayin (a company listed on the Shanghai Stock Exchange, stock code: 600744) since June 2016 and a non-executive director of Datang Renewable (a company listed on the Stock Exchange, stock code: 1798) from June 2016 to March 2019. Mr. Liu obtained a master's degree in electric power system and automation from North China Electric Power University (華北電力大學) in June 2005. He was accredited as a senior engineer by State Power Corporation of China (國家電力公司) in December 2003.

## Profile of Directors, Supervisors and Senior Management (Continued)

### Mr. Li Yi (李奕)

aged 52, prior to joining the Company, Mr. Li served successively in Changchun No. 1 Thermal Power Plant (長春熱電一廠) from August 1990 to March 2000 as a mechanic in Turbine Engine Department, technician, deputy director and the director of the Turbine Engine Department, as well as the division chief of Biotechnology Division, deputy chief engineer and division chief of Biotechnology Division, and deputy chief engineer and standing manager of the Head Office. From March 2000 to November 2006, he held various positions in Changchun Thermal Power Plant (長春熱電廠), including deputy director, director and member of the Party Committee. Mr. Li was the general manager of Datang Changchun No. 2 Cogeneration Power Co., Ltd. (大唐長春第二熱電有限責任公司) and Changchun Thermal Power Development Co., Ltd. (長春熱電發展有限公司) from November 2006 to November 2007. From November 2007 to April 2009, Mr. Li served as the director of the ideological and political work department and the secretary of Party Committee of Datang Jilin Power Generation Co., Ltd. (大唐吉林發電有限公司). During the period of April 2009 to July 2010, he served as the general manager of Datang Jilin Renewable Power Co., Ltd. (大唐吉林瑞豐新能源發電有限公司). Mr. Li served successively in Datang Shandong Power General Plant (大唐山東發電有限公司) from July 2010 to December 2014 as the director of Engineering Management Department, deputy chief engineer and the director of Engineering Management Department, as well as deputy general manager, and the member of the Party Committee (equivalent to Deputy Head Rank in the Headquarter of the Group). In the periods of December 2014 to December 2016 and December 2016 to December 2017, he held the position of the deputy director of the safety production department of the China Datang Corporation and the deputy director of the safety production department of the China Datang Corporation and the deputy director of the training center of Beijing International Clean Energy Power Generation (北京國際清潔能源發電培訓中心) respectively. From December 2017 to March 2019, he has been the director of the Safety Management and Production Department of China Datang, Datang International Power Generation Co., Ltd. and Datang Renewable, the deputy director of the training center of Beijing International Clean Energy Power Generation, and the director of Management Department of Datang Renewable since March 2019. In addition, Mr. Li also holds directorships in other listed companies. He has served as a non-independent director of Datang Guiguan (a company listed on the Shanghai Stock Exchange, stock code: 600236) since January 2019, a director of Datang Huayin (a company listed on the Shanghai Stock Exchange, stock code: 600744) since July 2018, and a non-executive director of Datang Renewable (a company listed on the Stock Exchange, stock code: 1798) since 26 June 2018. Mr. Li obtained the Bachelor of Engineering in Power Engineering from Southeast University in July 1990 and a Master's Degree in Economics from the School of Economics of Jilin University in June 2004. In December 2000, Mr. Li was qualified as a senior engineer by the Senior Technical Expert Qualifications Boards of State Electric Power Corporation (國家電力公司高級專業技術資格評審委員會).

## Profile of Directors, Supervisors and Senior Management (Continued)

### **Mr. Deng Xiandong (鄧賢東)**

aged 54, has been serving as the general manager of the Company from July 2013 to March 2019, an executive Director since August 2013 (transferred to be a non-executive director in March 2019), and the vice secretary of the Communist Party Committee of the Company from January 2015 to March 2019. Mr. Deng possessed approximately 30 years of working experience in the power industry and used to be responsible for the business operation and management of various electric power enterprises. Before joining the Company, Mr. Deng worked as a specialized technician of the production division at Xia Huan Yuan Power Plant (下花園發電廠) and Zhangjiakou Power Plant (張家口發電廠) from July 1987 to March 1993, and he served as the specialized technician of the powder production workshop and deputy manager of the production technology department of Zhangjiakou Power Plant from March 1993 to December 1998. During the period from December 1998 to September 2004, he served successively as the deputy plant manager, deputy chief engineer and head of equipment division and chief engineer at Plant A of Beijing Datang Power Zhangjiakou Power Plant (北京大唐發電張家口發電廠). Moreover, Mr. Deng was the general manager of Shanxi Datang International Yungang Thermal Power Company Limited (山西大唐國際雲岡熱電有限責任公司) from September 2004 to August 2006. From August 2006 to March 2009, Mr. Deng served successively as the deputy director of the Yunnan Representative Office of China Datang, the member of Communist Party Committee, deputy general manager and deputy director of planning and development department of the Yunnan Branch of China Datang. From August 2006 to June 2007, he worked successively as the general manager, member of Communist Party Committee of the Yunnan Branch of Datang International Power Generation Co., Ltd. (大唐國際發電股份有限公司). From June 2007 to April 2008, he was the secretary of the Communist Party Committee and general manager of Yunnan Datang International Electric Power Generation Company Limited (雲南大唐國際電力有限公司). From March 2009 to July 2013, Mr. Deng served as the vice secretary and secretary of Communist Party Committee, deputy general manager (in charge) and general manager of Datang Shandong Power Generation Co., Ltd. (大唐山東發電有限公司). Since March 2019, Mr. Deng has been serving as the chairman and the secretary to the Communist Party Committee of China Datang Overseas Investment Co., Ltd. (中國大唐集團海外投資有限公司). Mr. Deng graduated from Northeast China Institute of Electric Power (東北電力學院) and obtained a bachelor's degree in thermal power engineering for power plants in 1987. He further obtained a master's degree in power engineering at North China Electric Power University (華北電力大學) in 2004. Mr. Deng was accredited as a senior engineer by the North China Power Administration Bureau of the Ministry of Power Industry (電力工業部華北電業管理局) in September 1998.

# Profile of Directors, Supervisors and Senior Management (Continued)

## II. EXECUTIVE DIRECTOR

### Mr. Shen Zhen (申鎮)

aged 46, was the general manager of the environmental protection branch of the Company from November 2010 to January 2015 and has been serving as a deputy general manager and a member of the Communist Party Committee of the Company since January 2015, being responsible for the market development, research and development, international cooperation and external affairs, and has also been serving as an executive director since November 2018, being responsible for the Party Committee, discipline Inspection, remuneration, legal affairs and logistics of the Company. Mr. Shen had approximately 20 years of extensive experience in the power industry. From September 2004 to November 2010, Mr. Shen served successively as the manager of the engineering and project management department, deputy general manager of the desulfurization business department, deputy general manager of cooling technology business department, deputy director (in charge) of the general manager's working department and director of the engineering management department at Technologies & Engineering Company. Prior to joining the Company, Mr. Shen was a specialized engineer at Boiler Company of Beijing Electric Power Construction Company (北京電力建設公司鍋爐專業公司) from July 1995 to April 2000 and was appointed as the manager of the engineering management department of Guohua Ebara Environmental Engineering Co., Ltd. (國華荏原環境工程有限責任公司) from April 2000 to September 2004. Mr. Shen graduated from Southeast University (東南大學) with a bachelor's degree in thermal power engineering in 1995. He further obtained an MBA degree from Tsinghua University (清華大學) in 2007. Mr. Shen is an accredited grade-one constructor (一級建造師) recognized by the Ministry of Construction (國家建設部) in March 2005 and a senior engineer recognized by the Beijing Senior Specialized Technique Titles Evaluation Committee (北京市高級專業技術資格評審委員會) of Personnel in October 2007.

## III. INDEPENDENT NON-EXECUTIVE DIRECTORS

### Mr. Ye Xiang (叶翔)

aged 55, is an independent non-executive Director. Mr. Ye possessed over 20 years of extensive experience in the industries relating to finance, banking and regulation. Mr. Ye was an economist of the People's Bank of China from August 1994 to July 1998, and he worked for Hong Kong Monetary Authority (香港金融管理局) as a senior analyst from August 1998 to July 2000. Mr. Ye served as the executive director of the Bank of China International Holdings Limited (中銀國際控股有限公司) from August 2000 to July 2001. During the period from August 2001 to October 2007, he served successively as the director of China affairs of the Securities and Futures Commission of Hong Kong. Mr. Ye has been acting as the managing director of Vision Gain Capital limited (匯信資本有限公司) since November 2007; an independent director of UBS Securities LLC (瑞銀證券有限責任公司) since March 2010; and a member of the Public Shareholders Group of the SFC since April 2015. In addition, Mr. Ye has held directorship in other listed companies, including the position of independent non-executive director of Wuling Motors Holdings Limited (五菱汽車集團控股有限公司) (a company listed on the Stock Exchange, stock code: 0305) since October 2008 and the position of independent director of Shenzhen Shenxin Taifeng (Group) Co., Ltd. (深圳市深信泰豐(集團)股份有限公司) (a company listed on the Shenzhen Stock Exchange, stock code: 000034) since June 2011. Mr. Ye has also been serving as an independent executive director of 51 Credit Card Inc. (a company listed on the Stock Exchange, stock code: 2051) since February 2018. Mr. Ye obtained a doctoral degree in economics at the Financial Research Institute of the People's Bank of China (中國人民銀行總行金融研究所) in 1995. Mr. Ye was accredited as a chartered financial analyst by the CFA Institute in September 2004.

## Profile of Directors, Supervisors and Senior Management (Continued)

### Mr. Mao Zhuanjian (毛專建)

aged 65, is an independent non-executive Director. Mr. Mao possessed extensive experience in the environmental protection, energy conservation and clean production of the power industry. Mr. Mao currently serves as the senior expert of the energy conservation and environmental protection division of CEC (中國電力企業聯合會節能環保分會), member of the specialized committee for energy and environment of China Energy Research Society (中國能源研究會能源與環境專業委員會), member of the specialized committee for electric power and environmental protection of the Chinese Society for Electrical Engineering (中國電機工程學會電力環保專業委員會) and member of the low-carbon economics taskforce of the China Association of Plant Engineering Consultants (中國設備監理協會低碳經濟工作委員會). Before joining the Company, Mr. Mao was the engineer and deputy head of the environmental protection office of the planning department of the Ministry of Water and Power Industry (國家水電部) from February 1986 to November 1988. Between November 1988 and November 1993, Mr. Mao served as the deputy head of the Environmental Protection and Management Division (環境保護管理處) under the environmental protection center for China Electricity Council (中國電力企業聯合會環境保護中心). From November 1995 to September 2005, he served as director of the consulting division of CEC Electric Power Construction Technical Center (中電聯電力建設技術中心) under the State Power Corporation. From October 2005 to June 2017, he served successively as the manager of environmental protection division and the manager of climate change response division under the CEC, the vice secretary for the National Collaborative Network for Desulfurization and Denitrification Technologies for the Power Industry (全國電力行業脫硫脫硝技術協作網), and the deputy secretary and deputy secretary general for the energy conservation and environmental protection sub-division under the CEC. Mr. Mao graduated from Guizhou Industrial College (貴州工學院) in 1976, majoring in inorganic chemistry. Mr. Mao was accredited as a professor-level senior engineer by the Ministry of Power Industry in April 1999 and was engaged by the energy conservation and environmental protection sub-division under CEC as a core professional for CEC (中國電力企業聯合會核心專家) in June 2014. Mr. Mao was twice accredited as an expert in the expert reserves for environmental protection and energy conservation professionals for the power industry (電力行業環保節能專家庫專家) by CEC in October 2013 and August 2014, respectively.

### Mr. Gao Jiaxiang (高家祥)

aged 45, is an independent non-executive Director. Mr. Gao has considerable working experience in internal and external corporate audit, investment, merger and acquisition, restructuring and corporate valuation. Before joining the Company, Mr. Gao served as an audit manager at Xinxiang Juzhongyuan Certified Public Accountants (新鄉巨中元會計師事務所有限責任公司) from May 1996 to July 2003. He then worked at the Beijing branch of Nanfang Minhe Certified Public Accountants as the manager of audit department from August 2003 to June 2006. He worked as the manager at Beijing Zhonghe Dingxin Certified Public Accountants (北京中和鼎信會計師事務所) from July 2006 to August 2007 and the manager at Beijing Tianyuanquan Certified Public Accountants (北京天圓全會計師事務所) from September 2007 to February 2009. He then served as the chief financial officer of Beijing Guanshi Foundation International Investment Management Company Limited (北京管氏基業國際投資管理有限公司) from March 2009 to June 2017. From June 2017 to October 2017, Mr. Gao served as the chief financial officer of Risun Chemical Co., Ltd. (旭陽化工有限公司). Since October 2017, he has been serving as an executive director and the general manager of Beijing Huamai Huizhong Technology Co., Ltd. (北京華麥惠眾科技有限公司). Mr. Gao graduated from Central University of Finance and Economics (中央財經大學) in January 2009 and obtained a bachelor's degree in accounting. He then obtained an MBA from Central University of Finance and Economics in June 2016. He was accredited as a certified public accountant by the Chinese Institute of Certified Public Accountants in April 2003 and as a certified tax agent by Henan Certified Tax in June 2002.

# Profile of Directors, Supervisors and Senior Management (Continued)

## IV. SUPERVISORS

### Mr. Wang Yuanchun (王元春)

aged 55, is the chairman of the Supervisory Committee. He had approximately 30 years of working experience in the power related industries. Prior to joining the Company, Mr. Wang served successively as the director of the boiler department, specialized technician of the biotechnology division, manager of the biotechnology division, and deputy plant manager and the engineer of Hancheng Power Plant (韓城發電廠) under Datang Xiaxi Power Co., Ltd. (大唐陝西發電有限公司) from July 1986 to September 1999. Mr. Wang worked as the deputy head of Baoji Power Plant (寶鷄發電廠) from September 1999 to April 2001, the deputy general manager at the North West Power Development Co., Ltd. (西北電力開發有限責任公司) from April 2001 to October 2001, and the general manager at Xi'an Baqiao Thermal Power Co., Ltd. (西安灞橋熱電有限責任公司) from October 2001 to June 2003. From June 2003 to November 2006, he successively served as the deputy general manager, general manager, member of and secretary of the Communist Party Committee at Hancheng No. 2 Power Co., Ltd. (韓城第二發電有限責任公司). From November 2006 to July 2013, he successively served as the deputy manager of the engineering management department of China Datang, the member of the Communist Party Committee, vice secretary and secretary of the Communist Party Committee, deputy general manager and general manager at the Shanxi Branch of China Datang (中國大唐山西分公司). Mr. Wang has been serving as the deputy director of the disciplinary team of the Communist Party Committee of China Datang and the director of monitoring division (the office of disciplinary team) of the Communist Party Committee of China Datang since July 2013, and the director of inspection office of China Datang (中國大唐巡視工作辦公室) since February 2015, and the director and secretary of Communist Party Committee of China Datang Techno-Economic Research Institute (中國大唐集團技術經濟研究院) since June 2017 but he has ceased to serve as the director of monitoring division (the office of disciplinary team of the Communist Party Committee) of China Datang since October 2017, and the director and secretary of Communist Party Committee of China Datang Techno-Economic Research Institute from December 2017. Mr. Wang obtained a bachelor's degree in thermal power engineering for power plants in 1986 from Xi'an Jiaotong University (西安交通大學), where he further obtained a master's degree in electronic and information engineering from the same university in 2001. Mr. Wang was accredited as a senior engineer by the Northwest Electric Power Administration (西北電業管理局) in December 1997.

## Profile of Directors, Supervisors and Senior Management (Continued)

### **Mr. Miao Shihai (繆士海)**

aged 53, prior to joining the Company, Mr. Miao was an employee and the director of the Finance Department in Shandong Shiheng Power Plant (山東石橫發電廠) from August 1988 to December 1998, the director of Finance Department of Shandong Luneng Taishan Cable Co., Ltd. (魯能泰山電纜電器有限公司) from December 1998 to January 2005, the officer in charge of finance in Shandong Luneng Taishan Cable Co., Ltd. (山東魯能泰山電纜股份公司) from August 2003 to January 2005, the chief accountant of Shanxi Luneng Jinbei Aluminum Co., Ltd. (山西魯能晉北鋁業有限公司) from January 2005 to April 2010, the leader of the working group of Sanya International Culture Exchange Center (三亞國際文化交流中心) from April 2010 to August 2010, a member of the party committee, deputy general manager and the chief accountant of Hainan Luneng Guangda Properties Co., Ltd. (海南魯能廣大置業有限公司) and Hainan Sanya Harbour New City Development Co., Ltd. (海南三亞灣新城開發有限公司) from August 2010 to September 2011, a member of the party committee, deputy general manager and chief accountant of Shanxi Luneng Jinbei Aluminum Co., Ltd. from September 2011 to June 2012, was the supervisor of audit department, deputy general manager (executive) of CPI Financial Company Limited (中電投財務有限公司) from June 2012 to July 2013, the deputy director (executive) of Comprehensive Management Department of CPI Ronghe Financial Holding Co., Ltd. and CPI Financial Company Limited from July 2013 to May 2014, the manager of Institutional Building and Management Department of Datang Capital from September 2014 to March 2015, the secretary of the party branch, and general manager and secretary of the party branch in Datang Financial Lease Co., Ltd. from April 2015 to December 2016, the deputy general manager and a member of the party committee (equivalent to Deputy Head Rank in the Headquarter of the Group) of Datang Capital from December 2016 to August 2017, the deputy director in Finance Management Department of China Datang Corporation from August 2017 to December 2017, the deputy director in Finance Department of China Datang and director of Finance Management Department of Datang Renewable from December 2017 to April 2018, the deputy director of the audit department of China Datang, Datang International Power Generation Company Limited and Datang Renewable since April 2018. Mr. Miao obtained the association degree in industrial business management from Shanghai University of Electric Power in July 1988 and a Master's degree in Accounting from the Hebei Branch of Correspondence Institute of the Party School of the CPC Central Committee in July 2012. In December 2012, Mr. Miao was qualified as a senior economist by the China Power Investment Corporation.

## Profile of Directors, Supervisors and Senior Management (Continued)

### **Mr. Chen Li (陳利)**

aged 52, has 29 years of work experience in the power industry. He has served as a director of the ideological and political work department of the Company since October 2017. Before joining the Company, from July 1989 to April 2008, Mr. Chen worked for Beijing General Power Equipment Plant (北京電力設備總廠) and successively served as the assistant engineer for product design of the research institute, a deputy plant manager of the closed busbars plant, a deputy plant manager and the division head of sales and marketing division, plant manager, deputy chief engineer of the plant management office, deputy chief engineer and director of the information center, deputy chief engineer and the manager of the quality assurance department, deputy chief engineer and deputy general manager of grinding mill division and director of sales and marketing technical division. From April 2008 to February 2009, Mr. Chen served as the deputy general manager of mechanical transportation division of China Datang Technologies and Engineering Co., Ltd. (中國大唐集團科技工程有限公司). From February 2009 to September 2009, he served as a deputy general manager of Beijing Datang Hengtong Mechanical Transport Co., Ltd. (北京大唐恒通機械輸送技術有限公司). From September 2009 to February 2012, he served as the deputy head of the production preparation team for denitrification catalyst of China Datang Technologies and Engineering Co., Ltd. From February 2012 to October 2012, he served as the deputy general manager (in charge) of Datang Nanjing Environmental Protection Technology Co., Ltd. (大唐南京環保科技有限公司). From October 2012 to June 2014, he served as the executive deputy general manager of Beijing Datang Hengtong Mechanical Transport Co., Ltd. From June 2014 to January 2015, he served as the deputy general manager (in charge) of Beijing Datang Hengtong Mechanical Transport Co., Ltd. Mr. Chen served successively as the deputy director (in charge) of the general manager's office (international cooperation department), the director of the general manager's office (international cooperation department), the director of inspection audit unit, the director of ideological and political work department, the deputy chief economist and director of ideological and political work department from January 2015 to present. Mr. Chen graduated from Xi'an Jiaotong University (西安交通大學) majoring in electrical appliances of electrical engineering and obtained a bachelor's degree in engineering in 1985. Mr. Chen was accredited as a senior engineer by the State Power Corporation on 31 December 1999.



# Profile of Directors, Supervisors and Senior Management (Continued)

## V. SENIOR MANAGEMENT

### Mr. Hou Guoli (侯國力)

aged 56, served as the general manager and deputy secretary of the Communist Party Committee of the Company since March 2019. Mr. Hou Guoli possessed over 30 years of work experience in the power industry and used to be responsible for the business operation and management of various electric power enterprises. Before joining the Company, Mr. Hou Guoli successively worked as a specialized technician, deputy director and director of the biotechnology division in the Liangzihe Power Plant (亮子河發電廠) from August 1984 to April 1993. He served successively as the deputy chief engineer, chief engineer, deputy plant manager and plant manager in Jiamusi No. 2 Power Plant (佳木斯第二發電廠) from April 1993 to July 1997. He served successively as the secretary of the Communist Party Committee and general manager of Qitaihe No.1 Power Generation Co., Ltd. (七台河第一發電有限責任公司) from July 1997 to August 2004. He served as the deputy director of production safety department of China Datang from August 2004 to April 2008. He worked for Datang Shaanxi Power Generation Co., Ltd. (大唐陝西發電有限公司) from April 2008 to July 2013, serving successively as the secretary of the Communist Party committee and general manager, and the general manager and deputy secretary of the Communist Party Committee. From July 2013 to December 2016, he served successively as the general manager and secretary of the Communist Party Committee, and the general manager and deputy secretary of the Communist Party Committee in China Datang Corporation Ltd. Hunan Branch (中國大唐集團湖南分公司) and Datang Huayin Electric Power Co., Ltd. (大唐華銀電力股份有限公司). From December 2016 to March 2019, he served successively as the general manager and deputy secretary of the Communist Party Committee, and chairman and secretary of the Communist Party Committee in China Datang Overseas Investment Co., Ltd. (中國大唐集團海外投資有限公司). Mr. Hou Guoli graduated from Power Engineering Department of Northeast Electric Power University (東北電力學院) and obtained the Bachelor of Engineering in thermal power engineering for power plants in July 1984. Mr. Hou Guoli received special governmental allowance granted by State Council of People's Republic of China in December 2016. He was accredited as a professor-level senior engineer by the assessment centre for talents of China Datang Corporation Ltd. (中國大唐集團有限公司) in January 2018.

## Profile of Directors, Supervisors and Senior Management (Continued)

### **Mr. Liu Weihua (劉維華)**

aged 58, prior to joining the Company, Mr. Liu Weihua served as a soldier of Unit 87401 of People's Liberation Army of China from November 1979 to December 1980. From December 1980 to June 1988, he served as a worker and technician of Electric Power Division of Jilin Thermal Power Plant (吉林熱電廠電氣分場). From June 1988 to November 2006, he worked at Changchun No. 2 Thermal Power Plant (長春熱電二廠) (renamed subsequently as Changchun No. 2 Cogeneration Power Co., Ltd. (長春第二熱電有限責任公司)), where he served successively as a special worker, an inspector of the inspection office, the deputy secretary of the Youth League Committee, Party branch secretary of the party and mass department, vice president and president of the Labor Union, deputy general manager and secretary of the Party Committee of the Electric Power Division. He served as the director of Datang Changshan Power Plant (大唐長山電廠) from November 2006 to September 2009, served concurrently as the director of Preparation Team of Datang Da'an Power Generation Project (大唐大安發電項目籌建處) and head of Party Committee Preparation Team (黨委籌備組) from January 2008 to September 2009, and served concurrently as the director of Preparation Team of Datang Songyuan Power Generation Project (大唐松原發電項目籌建處) from March 2008 to September 2009. From September 2009 to July 2018, he worked at Datang International Power Generation Co., Ltd. Guangdong Branch (大唐國際發電股份有限公司廣東分公司), where he served successively as a member of the Party Organization, the deputy general manager, a member of the Party Organization, the managing deputy general manager, general manager, secretary to the Party Organization, general manager and deputy secretary of the Party Organization. He served concurrently as the general manager of Guangdong Fengsheng Shantou Power Generation Co., Ltd. (廣東豐盛汕頭發電有限公司) from September 2009 to December 2012, the director of the preparation office of Guangdong Datang International Fengsheng Power Plant (廣東大唐國際豐盛電廠) from February 2010 to December 2012, the managing deputy general manager of Guangdong Datang International Chaozhou Power Generation Company Limited (廣東大唐國際潮州發電有限公司) from January 2011 to December 2012, and the general manager and deputy secretary of the Party Committee of China Datang Guangdong Branch (中國大唐集團有限公司廣東分公司) from December 2017 to July 2018. Mr. Liu took undergraduate correspondence courses on power plant and power system automation from the School of Power Engineering of Northeast China Institute of Electric Power (東北電力學院) from September 1981 to July 1987, and majored in project management at Northeast Electric Power University (東北電力大學) from December 2004 to March 2008 and obtained a master's degree in engineering. In December 2002, he was granted the qualification of senior engineer by Senior Specialised Technique Qualification Evaluation Committee of State Power Corporation of China (國家電力公司高級專業技術資格評審委員會).

## Profile of Directors, Supervisors and Senior Management (Continued)

### Mr. Wang Haijie (王海傑)

aged 56, served as the deputy general manager of the Company since April 2019. Mr. Wang Haijie has over 30 years of experience in the power industry and has been in charge of the business operation and management of a number of electric power enterprises. Prior to joining the Company, Mr. Wang Haijie served as a worker at the thermal heat workshop of Xiahuayuan Power Plant (下花園發電廠) during December 1982 and July 1988, and a team head of the thermal heat workshop of Shalingzi Power Plant (沙嶺子發電廠) during July 1988 and June 1992; he successively served as a team head and deputy supervisor at the thermal heat division, the chief engineer at the production technology division of the maintenance and repairs department, and a supervisor at the production technology division of Qinhuangdao Thermal Power Plant (秦皇島熱電廠) during June 1992 and May 2004, the person-in-charge of the production preparation team, the chief engineer and the deputy head of the equipment and engineering department, the head of the equipment department, and the deputy chief engineer and the head of the equipment department of Guangdong Datang International Chaozhou Power Generation Co., Ltd. (廣東大唐國際潮州發電有限責任公司) during May 2004 and April 2007, an assistant to general manager and the deputy general manager of Fujian Datang International Ningde Power Generation Co., Ltd. (福建大唐國際寧德發電有限責任公司) during April 2007 and August 2009, the general manager of Shanxi Datang International Linfen Thermal Power Co., Ltd. (山西大唐國際臨汾熱電公司) during August 2009 and January 2011, the secretary to the party committee, deputy general manager, and general manager of Liaoning Datang International Fuxin Coal to Gas Co., Ltd. (遼寧大唐國際阜新煤製天然氣有限責任公司) during January 2011 and November 2016, a consultant at the expert work station of Zhongxin Energy and Chemical Technology Company Limited (中新能化科技有限公司) during November 2016 and January 2018, and the deputy general manager and a member of the party committee of China Datang Overseas Investment Co., Ltd. (中國大唐集團海外投資有限公司) during January 2018 and April 2019. Mr. Wang graduated from Zhangjiakou Vocational College (張家口市職工大學) in July 1988 and obtained a college degree. He obtained the qualification as senior engineer from Senior Specialized Technique Titles Evaluation Committee of China Datang Corporation in December 2009.

## Profile of Directors, Supervisors and Senior Management (Continued)

### Mr. Mao Hui (毛輝)

aged 44, has been serving as a deputy general manager of the Company since 10 March 2017, being responsible for the Company's overseas market development, international cooperation, foreign affairs and informatization management. He has approximately 20 years of experience in power industry. From January 2005 to February 2012, Mr. Mao served several positions in China Datang Technologies & Engineering Co., Ltd. (中國大唐集團科技工程有限公司) ("**Technology & Engineering Company**"), which is currently a subsidiary of the Company, including chief assistant of its general manager office, a deputy director of its science and technology management department and director of its human resource department. From February 2012 to January 2015, Mr. Mao served as director of human resource department of the Company, during which, Mr. Mao also served as general manager of Technology & Engineering Company from January 2014 to January 2015 and secretary to the Communist Party Committee of Technology & Engineering Company from March 2014 to January 2015. From January 2015 to December 2016, Mr. Mao continued to serve as general manager and secretary to the Communist Party Committee of Technology & Engineering Company. Prior to joining the Group, he served as an engineer of auxiliary power division of Hunan Thermal Power Construction Corporation (湖南省火電建設公司) from August 1997 to March 1999, as an engineer of power transmission and transformation department of China Huadian Engineering Co., Ltd. (中國華電工程(集團)有限公司) ("**China Huadian**") from April 1999 to December 2000, and chief information manager of general manager office of China Huadian from January 2001 to December 2004. Mr. Mao graduated from Xi'an Jiaotong University (西安交通大學) with a bachelor's degree in engineering in July 1997, majoring in electrical appliance. He further obtained an MBA degree from Tsinghua University (清華大學) in July 2009. Mr. Mao was accredited as a senior engineer by China Datang Corporation Ltd. in December 2009.

### Mr. Zeng Bing (曾兵)

aged 42, has been serving as the Joint Company Secretary and the authorised representative of the Company since 10 March 2017, being responsible for auditing, legal affairs and equity investment. He has approximately 20 years of experience in power industry. Prior to joining the Company, Mr. Zeng served several positions in Datang Yantan Hydropower Plant (大唐巖灘水力發電廠) from July 1997 to August 2006, including accountant, manager, deputy director and director of its financial department. From August 2006 to November 2013, he served as deputy director and director (in charge) of audit and supervision department of Datang Guiguan (a company listed on the Shanghai Stock Exchange, stock code: 600236). From October 2013 to January 2014, he served as the deputy general manager and secretary of the Communist Party committee of Datang Guiguan Shandong Power Investment Company Ltd. (大唐桂冠山東電力投資有限公司), a subsidiary of Guiguan Power. From January 2014 to October 2015, he served as director of securities affairs department of China Datang Corporation Ltd. Guangxi Branch (中國大唐集團有限公司廣西分公司), Datang Guiguan and Longtan Hydropower Development Co., Ltd. (龍灘水電開發有限公司) respectively. From October 2015 to December 2016, he served as the deputy general manager and secretary of the Communist Party committee of Guangxi Datang Electric Power Maintenance Co., Ltd. (廣西大唐電力檢修有限公司). From March 2017 to November 2017, He served as the chief economist of the Company. Mr. Zeng graduated from Zhongnan University of Finance and Economics (中南財經大學) with a bachelor's degree in economics in July 1997, majoring in accounting. Mr. Zeng was accredited as a PRC certified accountant by the Ministry of Finance of the People's Republic of China in May 2004.

## Profile of Directors, Supervisors and Senior Management (Continued)

### **Mr. Liang Xiuguang (梁秀廣)**

aged 40, has served as deputy general manager of the Company since 23 March 2018 and was responsible for material management and market development. He has approximately 18 years of experience in power industry. Before joining the Company, Mr. Liang served successively as watch keeper of boiler operation, office secretary, deputy director of the office and director of ideological and political department of Shandong Huangdao Power Plant (山東黃島發電廠) from July 2000 to September 2009. He served successively as director of the general economics department, deputy chief economist, vice general manager and a member of the party committee of Datang Shandong New Energy Co., Ltd. (大唐山東新能源有限公司) from September 2009 to March 2012. Mr. Liang concurrently served as vice general manager of Datang Shandong Clean Energy Development Co., Ltd. (大唐山東清潔能源開發有限公司) from November 2010 to March 2012, served as vice general manager and a member of the party committee of Shandong Clean Energy Development Co., Ltd. from March 2012 to March 2013, and served as a member of the party committee and vice general manager of China Creative Wind Energy Co., Ltd. (濟陽華創風能有限公司) from March 2013 to November 2013. Mr. Liang served successively as vice general manager of the automation department, deputy director of the material management department (was in charge of the overall work) and director of the material management department of the Company from November 2013 to January 2017. He served as the general manager and a member of the party committee of China Datang Technologies & Engineering Co., Ltd. (中國大唐集團科技工程有限公司) from January 2017 to March 2018. Mr. Liang graduated from power department of Shandong Electric Power College (山東省電力高等專科學校) in July 2000, majoring in thermal power, and studied undergraduate correspondence course in School of Continuing Education, Harbin Institute of Technology (哈爾濱工業大學繼續教育學院) from March 2010 to July 2012, majoring in thermal energy and power engineering. He obtained a master of engineering in Xi'an University (西安電子科技大學) in June 2017. Mr. Liang was qualified as senior politic official by China Datang Corporation Ltd. (中國大唐集團有限公司) in December 2016.

## Profile of Directors, Supervisors and Senior Management (Continued)

### **Ms. Zhu Mei (朱梅)**

aged 52, has served as the joint company secretary and authorized representative of the Company since 17 August 2018. Ms. Zhu served successively as a teacher at North China Power Administration Bureau University for Staff (華北電管局職工大學) and an economist of comprehensive planning department of North China Power Group Company (華北電力集團公司) from August 1988 to August 1999 prior to joining the Company. From August 1999 to August 2000, she served as a specialist of capital market department of Beijing Datang Power Generation Co., Ltd. (北京大唐發電股份有限公司). From March 2004 to June 2018, she acted successively as an investment planning director of the comprehensive planning department of North China Grid Company Limited (華北電網有限公司), a second level employee of the capital operation office of the development and planning department of China Datang Corporation, a second level employee of the capital operation office of the planning, investment and financing department of China Datang Corporation, a deputy director at the capital operation office of the planning, investment and financing department of China Datang Corporation, the deputy director of the capital operation office of capital operation and assets management department of China Datang Corporation, the director of the capital operation office of capital operation and assets management department of China Datang Corporation, and the director at securities finance first office of capital operation and assets management department of China Datang Corporation. Ms. Zhu obtained a bachelor degree of engineering in industrial management and engineering profession of management engineering department in the School of Management of Xi'an Jiaotong University in July 1988, a master's degree of economics in investment economics profession of investment department of Renmin University of China in January 1999, a master's degree of applied science of information system management profession in the faculty of engineering of University of Waterloo in Canada in October 2003. She was granted the qualification of senior economist from the Senior Economist Review Committee of North China Power Administration Bureau under the Ministry of Electric Power Industry in August 1999.

## Profile of Directors, Supervisors and Senior Management (Continued)

### **Mr. Wang Changqing (王長清)**

aged 47, Mr. Wang Changqing joined Datang Environment Technologies & Engineering Co. Ltd. (大唐環境科技工程有限公司) (renamed subsequently as China Datang Technologies & Engineering Co. Ltd. (中國大唐集團科技工程有限公司)), a subsidiary of the Company, in September 2006, where he served successively as the deputy general manager of the denitrification business department, deputy general manager of the environmental protection business department and deputy general manager of the desulphurization and denitrification business department. He joined the Company in February 2012, and served successively as the deputy general manager and deputy director (in charge) of the general manager office of environmental protection branch, deputy general manager (in charge) of environmental protection branch, deputy general manager (in charge) and a member of the Party Committee of environmental protection branch, deputy general manager (in charge), a member of the Party Committee of environmental protection branch, as well as deputy director (in charge) of Datang Electric Power Design and Research Institute (大唐電力設計研究院), general manager and a member of the Party Committee of environmental protection branch, general manager and a member of the Party Committee of environmental protection branch, as well as general manager and a member of the Party Committee of Beijing Datang Hengtong Mechanical Transport Co., Ltd. (北京大唐恒通機械輸送技術有限公司), and general manager and deputy secretary to the Party Committee of environmental protection branch, as well as general manager and deputy secretary to the Party Committee of Beijing Datang Hengtong Mechanical Transport Co., Ltd. Prior to joining the Company, from August 1993 to September 2006, Mr. Wang Changqing worked at Ansteel Group (鞍鋼集團), where he served successively as an engineer and the chairman of labor union of the machinery department of Mining Design and Research Institute (礦業設計院), head of the mining machinery design group of Mining Design and Research Institute, director of the mechanical power office of Mining Design and Research Institute, and director of the machinery office of Ansteel Design Institute (鞍鋼設計院). Mr. Wang Changqing majored in machinery manufacturing technology and equipment at the School of Mechanical Engineering of Shenyang Institute of Technology (瀋陽工業學院) from September 1989 to July 1993, and obtained a bachelor's degree in engineering. In December 2013, he was granted the qualification of senior engineer by Senior Specialised Technique Qualification Evaluation Committee of Anshan Iron and Steel Group Corporation (鞍山鋼鐵集團公司高級工程師技術資格評審委員會).

## Profile of Directors, Supervisors and Senior Management (Continued)

### **Mr. Wang Guanghui (王光輝)**

aged 50, joined the Company in December 2017 and has been serving as a director of the finance and property right management department. Prior to joining the Company, Mr. Wang Guanghui served as an accountant of the accounting department of Shandong Baiyanghe Power Plant (山東白楊河發電廠) from December 1990 to January 1995. From January 1995 to September 1997, he worked at Zhangdian Power Supply Bureau of Zibo Power Bureau in Shandong Province (山東淄博電業局張店供電局), where he served successively as an accountant of the finance office, as well as the director and chief accountant of the finance office. From September 1997 to December 2001, he worked at Qingdao Shanlv Cement Co., Ltd. (青島山鋁水泥有限公司工作), where he served successively as the assistant to the general manager and director of the finance department, as well as the chief accountant and director of the finance department. From December 2001 to July 2010, he worked at China Energy Fuel Delivery Co., Ltd. (中能燃料配送有限公司), where he served successively as the general manager and chief accountant of the financial settlement department, as well as the general manager, deputy general manager and chief accountant of the finance department. From March 2009 to May 2017, he served as the director of the financial settlement department directly under State Grid Energy Development Co., Ltd. (國網能源開發有限公司), and from May 2017 to December 2017, he served as the secretary of the general branch committee of the financial accounting center of Shendong Power Company Limited (神東電力公司). Mr. Wang Guanghui majored in industrial electrification at the School of Electromechanical Engineering of Shandong Institute of Building Material (branch) (山東建材工業學院分院) from September 1988 to July 1990, and obtained his college diploma; and majored in human resource management at the School of Business Administration of North China Electric Power University (華北電力大學) from September 2006 to July 2008, and obtained a bachelor's degree in management. In December 2012, he was granted the qualification of senior accountant by Senior Professional Technology Qualification Committee of State Grid Corporation of China (國家電網公司高級專業技術資格評審委員會).

### **Mr. Ren Haitao (任海濤)**

aged 46, prior to joining the Company, Mr. Ren worked at China National Water Resources & Electric Power Materials & Equipment Corporation (中國水利電力物資有限公司) from June 1997 to December 2011, where he served successively as a staff member of the information office, a staff member of the corporate management department, the chief economist of the corporate management department, deputy director of the commerce department (in charge) and deputy director of the development and planning department, as well as served as the general manager and deputy director of the development and planning department of Tian'e Tangsheng Materials Co., Ltd. in Guangxi (廣西自治區天峨唐盛物資有限公司). From December 2011 to July 2018, he worked at China Datang Corporation (中國大唐集團公司) (renamed subsequently as China Datang Corporation Ltd. (中國大唐集團有限公司)), where he served successively as the director of the planning and inspection office of the material management department, the director of the planning and inspection office of the material management department (tender and bidding center) and the director of No. 1 tender and bidding office of the material management department (tendering and bidding center). Mr. Ren majored in statistics at Capital University of Economics and Business (首都經濟貿易大學) from September 1994 to June 1997, and obtained a master's degree in economics. In December 2004, he was granted the qualification of senior economist by Senior Specialised Technique Qualification Evaluation Committee of State Grid Corporation of China (國家電網公司高級專業技術資格評審委員會).



# Human Resources

## I. PROFILE OF HUMAN RESOURCES

As at 31 December 2018, we had 1,211 employees, substantially all of whom were based in the PRC. The Group have individually established labor union branches. Currently, the Group have entered into employment agreements with all employees, in which the position, duties, remuneration, employment benefits, training, confidentiality obligations relating to trade secrets and grounds for termination are specified pursuant to the PRC Labor Law and other relevant regulations.

The table below sets forth the number of employees as at 31 December 2018 by their functions:

Function	Number of employees	Percentage of the total number of employees
Concession operation management personnel	299	24.39%
Engineering and technical personnel	244	20.15%
Sales personnel	131	10.82%
Research and development personnel	389	32.12%
Administrative and management personnel	97	8.01%
Manufacture personnel	26	2.15%
Others	25	2.06%
<b>Total</b>	<b>1,211</b>	<b>100%</b>

## II. STAFF INCENTIVES

According to the development requirements, the Company further established and improved the overall responsibility management system and the whole staff performance evaluation system on the basis of clear position objectives. In order to inspire the potential and work enthusiasm of employees, to fully embody the incentive and constraint behavior, and to laid a solid foundation for the career orderly development of all the employees, the Company divides the specific task in development planning into each department and position, objectively and accurately evaluates the job targets completing performance of employees by building position performance targets and performance standard, and realizes awards and punishments according to the score that is formed by evaluation results quantification.

## III. STAFF REMUNERATION POLICY

The remuneration package of our employees includes salaries, bonuses and allowances. Our employees also receive welfare benefits, including medical care, housing subsidies, retirement and other benefits. We carry out employee performance appraisals, establish diversified and dynamic appraisal mechanisms. The department heads' salaries and remunerations will be adjusted corresponding to the results of their performance appraisals. Pursuant to applicable PRC regulations, we have contributed to social insurance funds, including pension plans, medical insurance, work-related injury insurance, unemployment insurance and maternity insurance, and housing funds for our employees.

## Human Resources (Continued)

### **IV. STAFF TRAINING**

In order to attract and retain high-quality employees and further improve their knowledge, skill level and professional attainments, we place a strong emphasis on the training of our employees. We offer in-service education, training and other opportunities to our managers and employees to improve their professional skills and knowledge.

In 2018, the Group provided 26 training programs on business management, professional techniques and production skills, with 100% employees attending the trainings.

### **V. GUARANTEE OF STAFF RIGHTS**

The Group complies with the Labour Law of the PRC and the Labour Contract Law of the PRC in all material respects and makes contributions to social insurance and housing provident fund for our employees according to the above laws, among which the social insurance includes basic pension insurance, medical insurance, occupational injury insurance, unemployment insurance and maternity insurance.

# Independent Auditor's Report

**To the shareholders of Datang Environment Industry Group Co., Ltd.**  
*(Incorporated in the People's Republic of China with limited liability)*

## OPINION

We have audited the consolidated financial statements of Datang Environment Industry Group Co., Ltd. (the "**Company**") and its subsidiaries (the "**Group**") set out on pages 111 to 227, which comprise the consolidated statement of financial position as at 31 December 2018, the consolidated statement of profit or loss and other comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flows for the year then ended, and notes to the consolidated financial statements, including 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 31 December 2018, and of its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards ("**IFRSs**") issued by the International Accounting Standards Board ("**IASB**") and have been properly prepared in compliance with the disclosure requirements of the Hong Kong Companies Ordinance.

## BASIS FOR OPINION

We conducted our audit in accordance with Hong Kong Standards on Auditing ("**HKSAs**") issued by the Hong Kong Institute of Certified Public Accountants ("**HKICPA**"). 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 HKICPA's *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 judgement, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. For each matter below, our description of how our audit addressed the matter is provided in that context.

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

## Independent Auditor's Report (Continued)

### KEY AUDIT MATTERS (CONTINUED)

Key audit matter	How our audit addressed the key audit matter
Revenue recognition on construction contracts	
<p>Approximately 58% of the Group's total revenue was related to construction contracts for the year of 2018, which had a significant impact on the Group's consolidated financial statements. Revenue from these fixed price construction contracts was recognized over time, measured by reference to completion percentage of individual contract of construction works which requires estimation to be made by management. The completion percentage is estimated by reference to the actual costs incurred up to the end of the reporting period over the total budgeted costs. Significant management's estimation is involved in estimating the completion percentage and the total budgeted costs.</p> <p>The accounting policy, significant accounting judgements and estimates and disclosures about construction contracts are included in notes 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES, 3 SIGNIFICANT ACCOUNTING JUDGEMENTS AND ESTIMATES and 5 REVENUE, OTHER INCOME AND GAINS to the consolidated financial statements.</p>	<p>Our audit procedures included, among others, understanding and evaluating the revenue recognition process related to construction contracts and testing the relevant controls that the Group has put in place over its processes to record construction costs, total budgeted costs and construction contract revenue and to calculate the completion percentage. Besides, we gained an understanding of the construction progress based on examination of the associated project documentation and discussion on the status of projects with finance and project managers of the Group. We also discussed with management to gain an understanding of their estimates for the total budgeted costs and the changes, checked the nature and components of the costs, such as the sub-contracts, and took into account the historical accuracy of such estimates. Furthermore, we performed tests of details, such as reviewing the key contract terms of significant projects, checking to the major construction projects, including actual costs and tax invoices, and reviewing the calculation worksheets for the completion percentage of the construction works.</p> <p>We also evaluated the adequacy of the disclosures of the Group's construction contracts.</p>
Useful lives and residual values of property, plant and equipment	
<p>The net book value of property, plant and equipment of the Group at 31 December 2018 was RMB7,675 million. In determining the useful lives and residual values of property, plant and equipment, the Group periodically reviews the changes in market conditions, physical wear and tear, and maintenance of the assets. The estimation of the useful life and residual value of an asset is based on historical experience of the Group with similar assets that are used in a similar way. The depreciation amount will be adjusted if the estimated useful lives and/or the residual values of items of property, plant and equipment are different from previous estimation. Useful lives and residual values are reviewed, at the year end, based on changes in circumstances. Thus, significant management's estimation is involved in this process.</p> <p>The accounting policy, significant accounting judgements and estimates and disclosures about the balance of property, plant and equipment are included in notes 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES, 3 SIGNIFICANT ACCOUNTING JUDGEMENTS AND ESTIMATES and 13 PROPERTY, PLANT AND EQUIPMENT to the consolidated financial statements.</p>	<p>Our audit procedures included, among others, understanding the design and testing the internal controls of the property, plant and equipment cycle, including the controls related to useful lives and residual values; comparing and assessing the accounting estimation over the useful lives and residual values based on our knowledge of the business and comparable companies; identifying the physical wear and tear by site-visiting regarding significant items, discussing with the project manager and testing the frequency and quantity of the maintenance of the assets.</p> <p>We also evaluated the adequacy of the disclosures of the Group's property, plant and equipment.</p>

# Independent Auditor's Report (Continued)

## OTHER INFORMATION INCLUDED IN THE ANNUAL REPORT

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

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

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

## RESPONSIBILITIES OF THE DIRECTORS FOR THE CONSOLIDATED FINANCIAL STATEMENTS

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

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

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

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

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

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with HKSAAs 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.

## Independent Auditor's Report (Continued)

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

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

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

## Independent Auditor's Report (Continued)

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

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

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

The engagement partner on the audit resulting in this independent auditor's report is Cheong Ming Yik.

#### **Ernst & Young**

*Certified Public Accountants*

Hong Kong

22 March 2019

# Consolidated Statement of Profit or Loss and Other Comprehensive Income

Year ended 31 December 2018

	<i>Notes</i>	<b>2018</b> <i>RMB'000</i>	<b>2017</b> <i>RMB'000</i>
Revenue	5	<b>8,588,070</b>	8,024,494
Cost of sales		<b>(7,238,113)</b>	(6,424,764)
<b>Gross profit</b>		<b>1,349,957</b>	1,599,730
Selling and distribution expenses		<b>(42,237)</b>	(46,036)
Administrative expenses		<b>(279,419)</b>	(293,094)
Other income and gains	5	<b>169,414</b>	429
Finance costs	6	<b>(200,518)</b>	(182,831)
Impairment losses on financial and contract assets		<b>(59,775)</b>	–
<b>Profit before tax</b>	7	<b>937,422</b>	1,078,198
Income tax expense	10	<b>(154,199)</b>	(163,286)
<b>PROFIT FOR THE YEAR</b>		<b>783,223</b>	914,912
<b>OTHER COMPREHENSIVE INCOME</b>			
Other comprehensive income that may be reclassified to profit or loss in subsequent periods:			
Exchange differences on translation of foreign operations		<b>(1,566)</b>	(930)
Net other comprehensive income that may be reclassified to profit or loss in subsequent periods		<b>(1,566)</b>	(930)
Other comprehensive income that will not be reclassified to profit or loss in subsequent periods:			
Equity investments designated at fair value through other comprehensive income:			
Changes in fair value		<b>2,734</b>	–
Income tax effect		<b>(410)</b>	–
		<b>2,324</b>	–
Net other comprehensive income that will not be reclassified to profit or loss in subsequent periods		<b>2,324</b>	–
<b>OTHER COMPREHENSIVE INCOME FOR THE YEAR, NET OF TAX</b>		<b>758</b>	(930)
<b>TOTAL COMPREHENSIVE INCOME FOR THE YEAR</b>		<b>783,981</b>	913,982



# Consolidated Statement of Profit or Loss and Other Comprehensive Income (Continued)

Year ended 31 December 2018

<i>Notes</i>	<b>2018</b> <b>RMB'000</b>	2017 <i>RMB'000</i>
<b>Profit attributable to:</b>		
Owners of the parent	<b>766,736</b>	874,924
Non-controlling interests	<b>16,487</b>	39,988
	<b>783,223</b>	914,912
<b>Total comprehensive income attributable to:</b>		
Owners of the parent	<b>768,183</b>	874,403
Non-controlling interests	<b>15,798</b>	39,579
	<b>783,981</b>	913,982
<b>EARNINGS PER SHARE ATTRIBUTABLE TO ORDINARY EQUITY HOLDERS OF THE PARENT</b>		
Basic and diluted ( <i>RMB</i> )	<b>0.26</b>	0.29

# Consolidated Statement of Financial Position

31 December 2018

	<i>Notes</i>	<b>2018</b> <b>RMB'000</b>	2017 <i>RMB'000</i>
<b>NON-CURRENT ASSETS</b>			
Property, plant and equipment	13	<b>7,675,153</b>	7,341,666
Intangible assets	14	<b>208,615</b>	162,234
Prepaid land lease payments	15	<b>19,066</b>	19,531
Available-for-sale investment	16	–	5,000
Equity investments designated at fair value through other comprehensive income	16	<b>7,171</b>	–
Deferred tax assets	17	<b>45,395</b>	36,239
Other non-current assets		<b>331,608</b>	287,560
<b>Total non-current assets</b>		<b>8,287,008</b>	7,852,230
<b>CURRENT ASSETS</b>			
Inventories	18	<b>153,520</b>	123,927
Construction contracts	19	–	363,490
Contract assets	20	<b>982,436</b>	–
Trade and bills receivables	21	<b>8,398,505</b>	7,191,795
Prepayments, other receivables and other assets	22	<b>888,860</b>	946,087
Restricted cash	23	<b>36,928</b>	17,843
Time deposit	23	<b>35,000</b>	–
Cash and cash equivalents	23	<b>1,677,724</b>	1,666,080
<b>Total current assets</b>		<b>12,172,973</b>	10,309,222
<b>CURRENT LIABILITIES</b>			
Trade and bills payables	24	<b>6,481,262</b>	5,787,356
Other payables and accruals	25	<b>1,663,401</b>	1,110,673
Interest-bearing bank borrowings and other loans	26	<b>2,023,848</b>	1,234,066
Income tax payable		<b>27,110</b>	49,318
<b>Total current liabilities</b>		<b>10,195,621</b>	8,181,413
<b>NET CURRENT ASSETS</b>		<b>1,977,352</b>	2,127,809
<b>TOTAL ASSETS LESS CURRENT LIABILITIES</b>		<b>10,264,360</b>	9,980,039

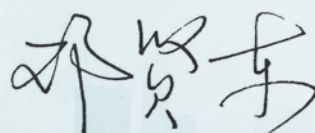
# Consolidated Statement of Financial Position (Continued)

31 December 2018

	<i>Notes</i>	<b>2018</b> <b>RMB'000</b>	2017 <i>RMB'000</i>
<b>NON-CURRENT LIABILITIES</b>			
Interest-bearing bank borrowings and other loans	26	<b>2,906,048</b>	3,016,766
Other non-current liabilities		<b>38,990</b>	36,912
<b>Total non-current liabilities</b>		<b>2,945,038</b>	3,053,678
<b>Net assets</b>		<b>7,319,322</b>	6,926,361
<b>EQUITY</b>			
Equity attributable to owners of the parent			
Share capital	27	<b>2,967,542</b>	2,967,542
Reserves	28	<b>4,153,865</b>	3,775,926
		<b>7,121,407</b>	6,743,468
Non-controlling interests		<b>197,915</b>	182,893
<b>Total equity</b>		<b>7,319,322</b>	6,926,361



**Jin Yaohua**  
*Director*



**Deng Xiandong**  
*Director*

中國大唐

# Consolidated Statement of Changes in Equity

Year ended 31 December 2018

	Attributable to owners of the parent						Total	Non-controlling interests	Total equity
	Share capital	Capital reserve*	Statutory surplus reserve*	Fair value reserve*	Exchange fluctuation reserve*	Retained profits*			
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	
At 31 December 2017	2,967,542	1,315,483	278,050	-	560	2,181,833	6,743,468	182,893	6,926,361
Effect of adoption of IFRS 9	-	-	-	(478)	-	(3,986)	(4,464)	1,425	(3,039)
At 1 January 2018 (restated)	2,967,542	1,315,483	278,050	(478)	560	2,177,847	6,739,004	184,318	6,923,322
Profit for the year	-	-	-	-	-	766,736	766,736	16,487	783,223
Other comprehensive income for the year:									
Change in fair value of equity investments at fair value through other comprehensive income, net of tax	-	-	-	2,324	-	-	2,324	-	2,324
Exchange difference on translation of foreign operations	-	-	-	-	(877)	-	(877)	(689)	(1,566)
Total comprehensive income for the year	-	-	-	2,324	(877)	766,736	768,183	15,798	783,981
Appropriation to statutory surplus reserve	-	-	72,054	-	-	(72,054)	-	-	-
Final 2017 dividend declared (Note 11)	-	-	-	-	-	(385,780)	(385,780)	-	(385,780)
Dividends paid by a subsidiary to its non-controlling shareholders	-	-	-	-	-	-	-	(2,201)	(2,201)
At 31 December 2018	2,967,542	1,315,483	350,104	1,846	(317)	2,486,749	7,121,407	197,915	7,319,322
At 1 January 2017	2,967,542	1,315,483	163,538	-	1,081	1,792,364	6,240,008	175,346	6,415,354
Profit for the period	-	-	-	-	-	874,924	874,924	39,988	914,912
Other comprehensive income for the year:									
Exchange difference on translation of foreign operations	-	-	-	-	(521)	-	(521)	(409)	(930)
Total comprehensive income for the year	-	-	-	-	(521)	874,924	874,403	39,579	913,982
Appropriation to statutory surplus reserve	-	-	114,512	-	-	(114,512)	-	-	-
Dividends declared to owners of the parent (Note 11)	-	-	-	-	-	(370,943)	(370,943)	-	(370,943)
Dividends declared by a subsidiary to its non-controlling shareholders	-	-	-	-	-	-	-	(32,032)	(32,032)
At 31 December 2017	2,967,542	1,315,483	278,050	-	560	2,181,833	6,743,468	182,893	6,926,361

\* These reserves accounts comprise the consolidated reserves of RMB4,153,865,000 (31 December 2017: RMB3,775,926,000) in the consolidated statement of financial position.

# Consolidated Statement of Cash Flows

Year ended 31 December 2018

	<i>Notes</i>	<b>2018</b> <b>RMB'000</b>	2017 <b>RMB'000</b>
<b>CASH FLOWS FROM OPERATING ACTIVITIES</b>			
<b>Profit before tax</b>		<b>937,422</b>	1,078,198
<b>Adjustments for:</b>			
Finance costs		<b>200,518</b>	182,831
Interest income		<b>(9,739)</b>	(7,166)
Depreciation of property, plant and equipment	13	<b>485,703</b>	504,403
Amortization of intangible assets	14	<b>12,455</b>	11,100
Amortization of prepaid land lease payments	15	<b>465</b>	465
Loss on disposal of items of property, plant and equipment	5	<b>–</b>	31
Amortisation of government grants		<b>(5,461)</b>	(3,915)
Impairment loss on trade receivables	21	<b>57,910</b>	14,963
Impairment loss on other receivables	22	<b>(133)</b>	11,178
Impairment loss on contract assets	20	<b>1,998</b>	–
(Increase)/decrease in inventories		<b>(29,593)</b>	6,359
Increase in construction contracts		<b>–</b>	(125,743)
Increase in contract assets		<b>(623,317)</b>	–
Increase in trade and bills receivables		<b>(1,244,610)</b>	(872,821)
Decrease in prepayments and other assets		<b>150,330</b>	175,029
Increase in trade and bills payables		<b>885,774</b>	62,181
Decrease in other payables and accruals		<b>(130,123)</b>	(4,351)
(Increase)/decrease in restricted cash		<b>(19,085)</b>	7,308
Cash generated from operations		<b>670,514</b>	1,040,050
Income tax paid		<b>(182,732)</b>	(166,219)
<b>Net cash flows from operating activities</b>		<b>487,782</b>	873,831

# Consolidated Statement of Cash Flows (Continued)

Year ended 31 December 2018

	2018 <i>RMB'000</i>	2017 <i>RMB'000</i>
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>		
Interest received	9,739	7,166
Purchase of items of property, plant and equipment and intangible assets	(827,814)	(1,165,824)
Proceeds from disposal of items of property, plant and equipment	–	241
Increase in time deposit	(35,000)	–
Receipt of government grants for property, plant and equipment	13,486	12,880
Net cash flows used in investing activities	(839,589)	(1,145,537)
<b>CASH FLOWS FROM FINANCING ACTIVITIES</b>		
Proceeds from bank borrowings and other loans	3,984,550	978,354
Repayments of bank borrowings and other loans	(3,306,536)	(1,359,677)
Share issue expenses	(11,088)	(32,221)
Dividends paid to shareholders	(83,650)	(370,943)
Dividends paid to non-controlling interests	(2,201)	–
Interest paid	(210,780)	(195,067)
Net cash flows from/(used in) financing activities	370,295	(979,554)
<b>NET INCREASE/(DECREASE) IN CASH AND CASH EQUIVALENTS</b>		
	18,488	(1,251,260)
Cash and cash equivalents at beginning of year	1,666,080	3,012,614
Effect of foreign exchange rate changes, net	(6,844)	(95,274)
<b>CASH AND CASH EQUIVALENTS AT END OF YEAR</b>	<b>1,677,724</b>	<b>1,666,080</b>

# Notes to Financial Statements

31 December 2018

## 1. CORPORATE AND GROUP INFORMATION

Datang Environment Industry Group Co., Ltd. (大唐環境產業集團股份有限公司) (the “**Company**”) was established on 25 July 2011 in the People’s Republic of China (the “**PRC**”) with limited liability. On 26 June 2015, the Company was converted into a joint stock company with limited liability from a limited liability company. The shares of the Company have been listed on the Main board of The Stock Exchange of Hong Kong Limited (the “**Hong Kong Stock Exchange**”) since 15 November 2016. The address of its registered office is No.120 Zizhuyuan Road, Haidian District, Beijing, the PRC.

The Company and its subsidiaries (together the “**Group**”) are involved in the following principal activities: development of environmental protection projects, investment on environmental facilities and operation management; research and development, design, production, examination, sale and technical services of denitrification catalysts; research and development, production and sale of self-controlled systems; development and testing of environmental protection technology; production and sale of environmental protection equipment; design, construction and contracting of environmental protection engineering; treatment of sewage and seawater; design and contracting of power engineering systems; energy saving techniques as well as development and usage of new energy technology; design and contracting of material transportation systems and corrosion protection engineering systems; building materials and chemical products (excluding hazardous chemicals); sale of machinery equipment, electronic products and hardware; contracting of overseas projects; import and export businesses; and consultation services in relation to the above businesses. (For the projects which need approval in accordance with the laws and regulations, the relevant activities are carried out upon approval.)

In the opinion of the directors of the Company (“**Directors**”), the immediate holding company and ultimate holding company of the Company is China Datang Corporation Ltd. (“**China Datang Corporation**”), a company established and domiciled in the PRC and wholly owned by the State-owned Assets Supervision and Administration Commission of the State Council.

# Notes to Financial Statements (Continued)

31 December 2018

## 1. CORPORATE AND GROUP INFORMATION (CONTINUED)

### Information about subsidiaries

Particulars of the Company's subsidiaries are as follows:

Company name #	Place of incorporation/ registration	Issued and fully paid-up capital/ registered capital	Percentage of equity attributable to the Company (%)		Principal activities
			Direct	Indirect	
China Datang Technologies & Engineering Co., Ltd. (中國大唐集團科技工程有限公司) (" <b>Technologies &amp; Engineering Company</b> ")	Beijing, the PRC	RMB180,000,000	56.00	–	Development of environmental protection technology and provision of engineering services in the PRC
Datang Nanjing Environmental Protection Technology Co., Ltd. (大唐南京環保科技有限責任公司) (" <b>Nanjing Environmental Protection</b> ")	Nanjing, the PRC	RMB124,630,000	92.11	–	Development and sale of catalysts; denitration engineering service in the PRC
Beijing Datang Hengtong Science & Technology Co., Ltd. (北京大唐恒通科技有限公司) (" <b>Hengtong Company</b> ") (note 1)	Beijing, the PRC	RMB42,000,000	100.00	–	Development of environmental protection technology and provision of technology related service in the PRC
Jiangsu Nanjing Thermal Electricity Engineering Design Institute Co., Ltd. (江蘇南京熱電工程設計院有限責任公司) (" <b>Nanjing Design Institute</b> ")	Nanjing, the PRC	RMB50,000,000	100.00	–	Provision of engineering design service of the power industry in the PRC
Datang Technologies & Engineering India Private Limited (大唐科技工程印度有限公司) (" <b>Technologies &amp; Engineering India</b> ")	Mumbai, India	Rupees 1,000,000	–	100.00	Provision of engineering service and equipment purchase and sales in India
Datang Beijing Energy Saving & Technology Co., Ltd. (大唐(北京)節能技術有限公司)	Beijing, the PRC	RMB10,000,000	65.00	–	Construction project management, construction and technology services in the PRC
Datang Beijing Water Engineering & Technology Co., Ltd. (大唐(北京)水務工程技術有限公司) (" <b>Water Engineering &amp; Technology</b> ") (note 2)	Beijing, the PRC	RMB187,976,000	100.00	–	Technology services, water engineering and construction services in the PRC



# Notes to Financial Statements (Continued)

31 December 2018

## 1. CORPORATE AND GROUP INFORMATION (CONTINUED)

### Information about subsidiaries (Continued)

Company name #	Place of incorporation/ registration	Issued and fully paid-up capital/ registered capital	Percentage of equity attributable to the Company (%)		Principal activities
			Direct	Indirect	
Zhejiang Datang Tiandi Environmental Technology Co., Ltd. (浙江大唐天地環保科技有限公司) (“ <b>Tiandi Environment</b> ”)	Ningbo, the PRC	RMB60,000,000	65.00	–	Development of pollution improvement environmental protection technology and provision of technology service in the PRC
Datang (Beijing) Energy Management Co., Ltd. (大唐(北京)能源管理有限公司) (“ <b>Energy Management Company</b> ”)	Beijing, the PRC	RMB150,000,000	100.00	–	Provision of engineering service; EPC and energy saving technology promotion services in the PRC

# The names of these companies referred to in this report represent management’s best effort at translating the Chinese names of the companies, as no English names have been registered.

*Note 1:* On 23 November 2018, the Company injected cash of RMB37,000,000 to Hengtong Company. Upon the capital injection, the issued and fully paid-up capital of Hengtong Company was increased to RMB42,000,000.

*Note 2:* On 7 June 2018 and 13 August 2018, the Company injected cash of RMB34,036,000 and RMB53,940,000 to Water Engineering & Technology, respectively. Upon the capital injection, the issued and fully paid-up capital of Water Engineering & Technology was increased to RMB187,976,000.

*Note 3:* On 8 February 2018, the Company approved the liquidation of Beijing Fengjingshengbao Co., Ltd. (北京豐璟晟寶物業管理有限公司), a subsidiary of the Company. The liquidation was completed on 10 May 2018.

## 2.1 BASIS OF PREPARATION

These financial statements have been prepared in accordance with International Financial Reporting Standards (“**IFRSs**”) (which include all International Financial Reporting Standards, International Accounting Standards (“**IASs**”) and Interpretations) issued by the International Accounting Standards Board (the “**IASB**”), and the disclosure requirements of the Hong Kong Companies Ordinance. They have been prepared on a historical cost basis, except for equity investments which have been measured at fair value. These financial statements are presented in Renminbi (“**RMB**”) and all values are rounded to the nearest thousand except when otherwise indicated.

## 2.1 BASIS OF PREPARATION (CONTINUED)

### Basis of consolidation

The consolidated financial statements include the financial statements of the Company and its subsidiaries for the year ended 31 December 2018. A subsidiary is an entity, directly or indirectly, controlled by the Company. Control is achieved when the Group is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee (i.e. existing rights that give the Group the current ability to direct the relevant activities of the investee).

When the Company has, directly or indirectly, less than a majority of the voting or similar rights of an investee, the Group considers all relevant facts and circumstances in assessing whether it has power over an investee, including:

- (a) the contractual arrangement with the other vote holders of the investee;
- (b) rights arising from other contractual arrangements; and
- (c) the Group's voting rights and potential voting rights.

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

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

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

If the Group loses control over a subsidiary, it derecognises (i) the assets (including goodwill) and liabilities of the subsidiary; (ii) the carrying amount of any non-controlling interests; and (iii) the cumulative translation differences recorded in equity; and recognises (i) the fair value of the consideration received; (ii) the fair value of any investment retained and (iii) any resulting surplus or deficit in profit or loss. The Group's share of components previously recognised in other comprehensive income is reclassified to profit or loss or retained profits, as appropriate, on the same basis as would be required if the Group had directly disposed of the related assets or liabilities.

# Notes to Financial Statements (Continued)

31 December 2018

## 2.2 CHANGES IN ACCOUNTING POLICIES AND DISCLOSURES

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

Amendments to IFRS 2	<i>Classification and Measurement of Share-based Payment Transactions</i>
Amendments to IFRS 4	<i>Applying IFRS 9 Financial Instruments with IFRS 4 Insurance Contracts</i>
IFRS 9	<i>Financial Instruments</i>
IFRS 15	<i>Revenue from Contracts with Customers</i>
Amendments to IFRS 15	<i>Clarifications to IFRS 15 Revenue from Contracts with Customers</i>
Amendments to IAS 40	<i>Transfers of Investment Property</i>
IFRIC Interpretation 22	<i>Foreign Currency Transactions and Advance Consideration</i>
Annual Improvements 2014–2016 Cycle	<i>Amendments to IFRS 1 and IAS 28</i>

Except for the amendments to IFRS 2, amendments to IFRS 4, amendments to IAS 40 and Annual Improvements 2014–2016 Cycle, which are not relevant to the preparation of the Group's financial statements, the nature and the impact of the new and revised IFRSs are described below:

- (a)** IFRS 9 Financial Instruments replaces IAS 39 Financial Instruments: Recognition and Measurement for annual periods beginning on or after 1 January 2018, bringing together all three aspects of the accounting for financial instruments: classification and measurement, impairment and hedge accounting.

With the exception of hedge accounting, which the Group has applied prospectively, the Group has recognised the transition adjustments of adopting IFRS 9 against the applicable opening balances in equity at 1 January 2018. Therefore, the comparative information was not restated and continues to be reported under IAS 39.

# Notes to Financial Statements (Continued)

31 December 2018

## 2.2 CHANGES IN ACCOUNTING POLICIES AND DISCLOSURES (CONTINUED)

### (a) (Continued)

#### Classification and measurement

The following information sets out the impacts of adopting IFRS 9 on the statement of financial position, including the effect of replacing IAS 39's incurred credit loss calculations with IFRS 9's expected credit losses ("ECLs").

A reconciliation between the carrying amounts under IAS 39 and the balances reported under IFRS 9 as at 1 January 2018 is as follows:

Notes	Category	IAS 39 measurement		Re-classification	ECL	Other	IFRS 9 measurement	
		Amount	Amount				Amount	Category
		RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	
<b>Financial assets</b>								
	Equity investments designated at fair value through other comprehensive income	N/A	-	5,000	-	(562)	4,438	FVOCI <sup>1</sup> (equity)
	From: available-for-sale investments	(i)	-	5,000	-	-	-	
	Available-for-sale investments	AFS <sup>2</sup>	5,000	(5,000)	-	-	-	
	To: equity investments designated at fair value through other comprehensive income	(i)	-	(5,000)	-	-	-	
	Trade and bills receivables	(ii) L&R <sup>3</sup>	7,191,795	-	(700)	-	7,191,095	AC <sup>4</sup>
	Financial assets included in prepayments, other receivables and other assets	L&R	266,619	-	-	-	266,619	AC
	Restricted cash	L&R	17,843	-	-	-	17,843	AC
	Cash and cash equivalents	L&R	1,666,080	-	-	-	1,666,080	AC
			9,147,337		(700)	(562)	9,146,075	
<b>Other assets</b>								
	Contract assets	(ii)	363,490	-	(2,373)	-	361,117	
	Deferred tax assets		36,239	-	512	84	36,835	
			399,729	-	(1,861)	84	397,952	
	<b>Total assets</b>		9,547,066	-	(2,561)	(478)	9,544,027	

<sup>1</sup> FVOCI: Financial assets at fair value through other comprehensive income

<sup>2</sup> AFS: Available-for-sale investments

<sup>3</sup> L&R: Loans and receivables

<sup>4</sup> AC: Financial assets or financial liabilities at amortised cost

# Notes to Financial Statements (Continued)

31 December 2018

## 2.2 CHANGES IN ACCOUNTING POLICIES AND DISCLOSURES (CONTINUED)

### (a) (Continued)

#### **Classification and measurement (Continued)**

Notes:

- (i) The Group has elected the option to irrevocably designate its previous available-for-sale equity investments as equity investments at fair value through other comprehensive income.
- (ii) The gross carrying amounts of the trade receivables and the contract assets under the column “IAS 39 measurement – Amount” represent the amounts after adjustments for the adoption of IFRS 15 but before the measurement of ECLs. Further details of the adjustments for the adoption of IFRS 15 are included in note 2.2(b) to the financial statements.

#### **Impairment**

The following table reconciles the aggregate opening impairment allowances under IAS 39 to the ECL allowances under IFRS 9.

	<b>Impairment allowances under IAS 39 at 31 December 2017</b>	<b>Re-measurement</b>	<b>ECL allowances under IFRS 9 at 1 January 2018</b>
	<i>RMB'000</i>	<i>RMB'000</i>	<i>RMB'000</i>
Trade receivables	106,275	700	106,975
Contract assets	–	2,373	2,373
	106,275	3,073	109,348

# Notes to Financial Statements (Continued)

31 December 2018

## 2.2 CHANGES IN ACCOUNTING POLICIES AND DISCLOSURES (CONTINUED)

### (a) (Continued)

#### *Impact on reserves and retained profits*

The impact of transition to IFRS 9 on reserves and retained profits is as follows:

	<b>Reserves and retained profits</b> <i>RMB'000</i>
	<hr/>
<b>Fair value reserve under IFRS 9 (available-for-sale investment revaluation reserve under IAS 39)</b>	
Balance as at 31 December 2017 under IAS 39	–
Remeasurement of equity investments designated at fair value through other comprehensive income previously measured at cost under IAS 39	(562)
Deferred tax in relation to the above	84
	<hr/>
Balance as at 1 January 2018 under IFRS 9	(478)
	<hr/> <hr/>
<b>Retained profits</b>	
Balance as at 31 December 2017 under IAS 39	2,181,833
Recognition of expected credit losses for contract assets under IFRS 9	(1,474)
Recognition of expected credit losses for trade receivables under IFRS 9	(3,275)
Deferred tax in relation to the above	763
	<hr/>
Balance as at 1 January 2018 under IFRS 9	2,177,847
	<hr/> <hr/>

# Notes to Financial Statements (Continued)

31 December 2018

## 2.2 CHANGES IN ACCOUNTING POLICIES AND DISCLOSURES (CONTINUED)

- (b) IFRS 15 and its amendments replace IAS 11 *Construction Contracts*, IAS 18 *Revenue* and related interpretations and it applies, with limited exceptions, to all revenue arising from contracts with customers. IFRS 15 establishes a new five-step model to account for revenue arising from contracts with customers. Under IFRS 15, revenue is recognised at an amount that reflects the consideration to which an entity expects to be entitled in exchange for transferring goods or services to a customer. The principles in IFRS 15 provide a more structured approach for measuring and recognising revenue. The standard also introduces extensive qualitative and quantitative disclosure requirements, including disaggregation of total revenue, information about performance obligations, changes in contract asset and liability account balances between periods and key judgements and estimates. The disclosures are included in note 5 to the financial statements.

The Group has adopted IFRS 15 using the modified retrospective method of adoption. Under this method, the standard can be applied either to all contracts at the date of initial application or only to contracts that are not completed at this date. The Group has elected to apply the standard to contracts that are not completed as at 1 January 2018.

The cumulative effect of the initial application of IFRS 15 was recognised as an adjustment to the opening balance of retained profits as at 1 January 2018. Therefore, the comparative information was not restated and continues to be reported under IAS 11, IAS 18 and related interpretations.

# Notes to Financial Statements (Continued)

31 December 2018

## 2.2 CHANGES IN ACCOUNTING POLICIES AND DISCLOSURES (CONTINUED)

### (b) (Continued)

Set out below are the amounts by which each financial statement line item was affected as at 1 January 2018 as a result of the adoption of IFRS 15:

	<i>Notes</i>	<b>Increase/ (decrease)</b> <i>RMB'000</i>
<b>Assets</b>		
Construction contracts	(i)	(363,490)
Contract assets	(i)	363,490
Total assets		–
<b>Liabilities</b>		
Other payables and accruals – advances from customers	(ii)	(537,134)
Other payables and accruals – contract liabilities	(ii)	537,134
Total liabilities		–

The adoption of IFRS 15 has had no impact on consolidated statement of profit or loss and other comprehensive income, or on the Group's operating, investing and financing cash flows.



# Notes to Financial Statements (Continued)

31 December 2018

## 2.2 CHANGES IN ACCOUNTING POLICIES AND DISCLOSURES (CONTINUED)

### (b) (Continued)

Consolidated statement of financial position as at 31 December 2018:

	<i>Notes</i>	Amounts prepared under		Increase/ (decrease) RMB'000
		IFRS 15 RMB'000	Previous IFRS RMB'000	
Construction contracts	(i)	–	982,436	(982,436)
Contract assets	(i)	982,436	–	982,436
Total assets		982,436	982,436	–
Net assets		982,436	982,436	–
Other payables and accruals – advances from customers	(ii)	–	312,064	(312,064)
Other payables and accruals – contract liabilities	(ii)	312,064	–	312,064
Total liabilities		312,064	312,064	–

The nature of the adjustments as at 1 January 2018 and the reasons for the significant changes in the statement of financial position as at 31 December 2018 are described below:

# Notes to Financial Statements (Continued)

31 December 2018

## 2.2 CHANGES IN ACCOUNTING POLICIES AND DISCLOSURES (CONTINUED)

### (b) (Continued)

#### (i) *Construction services*

Before the adoption of IFRS 15, contract costs were recognised as an asset provided it was probable that they would be recovered. Such costs represented an amount due from the customers and were recorded as construction contracts in the statement of financial position before the construction services were billed to customers. Upon the adoption of IFRS 15, a contract asset is recognised when the Group performs by transferring goods or services to customers and the Group's right to consideration is conditional. Accordingly, the Group reclassified RMB363,490,000 from construction contracts to contract assets as at 1 January 2018.

As at 31 December 2018, the adoption of IFRS 15 resulted in a decrease in construction contracts of RMB982,436,000 and an increase in contract assets of RMB982,436,000.

#### (ii) *Consideration received from customers in advance*

Before the adoption of IFRS 15, the Group recognised consideration received from customers in advance as other payables. Under IFRS 15, the amount is classified as contract liabilities which is included in other payables and accruals.

Therefore, upon adoption of IFRS 15, the Group reclassified RMB537,134,000 from advance from customers to contract liabilities as at 1 January 2018 in relation to the consideration received from customers in advance as at 1 January 2018.

As at 31 December 2018, under IFRS 15, RMB312,064,000 was reclassified from advance from customers in other payables to contract liabilities in relation to the consideration received from customers in advance for the sale of goods and the provision of construction services.

# Notes to Financial Statements (Continued)

31 December 2018

## 2.3 ISSUED BUT NOT YET EFFECTIVE INTERNATIONAL FINANCIAL REPORTING STANDARDS

The Group has not applied the following new and revised IFRSs, that have been issued but are not yet effective, in these financial statements.

Amendments to IFRS 3	<i>Definition of a Business<sup>2</sup></i>
Amendments to IFRS 9	<i>Prepayment Features with Negative Compensation<sup>1</sup></i>
Amendments to IFRS 10 and IAS 28 (2011)	<i>Sale or Contribution of Assets between an Investor and its Associate or Joint Venture<sup>4</sup></i>
IFRS 16	<i>Leases<sup>1</sup></i>
IFRS 17	<i>Insurance Contracts<sup>3</sup></i>
Amendments to IAS 1 and IAS 8	<i>Definition of Material<sup>2</sup></i>
Amendments to IAS 19	<i>Plan Amendment, Curtailment or Settlement<sup>1</sup></i>
Amendments to IAS 28	<i>Long-term Interests in Associates and Joint Ventures<sup>1</sup></i>
IFRIC Interpretation 23	<i>Uncertainty over Income Tax Treatments<sup>1</sup></i>
Annual Improvements 2015–2017 Cycle	<i>Amendments to IFRS 3, IFRS 11, IAS 12 and IAS 23<sup>1</sup></i>

<sup>1</sup> Effective for annual periods beginning on or after 1 January 2019

<sup>2</sup> Effective for annual periods beginning on or after 1 January 2020

<sup>3</sup> Effective for annual periods beginning on or after 1 January 2021

<sup>4</sup> No mandatory effective date yet determined but available for adoption

# Notes to Financial Statements (Continued)

31 December 2018

## 2.3 ISSUED BUT NOT YET EFFECTIVE INTERNATIONAL FINANCIAL REPORTING STANDARDS (CONTINUED)

Further information about those IFRSs that are expected to be applicable to the Group is described below:

IFRS 16, replaces IAS 17 *Leases*, IFRIC 4 *Determining whether an Arrangement contains a Lease*, SIC-15 *Operating Leases – Incentives* and SIC-27 *Evaluating the Substance of Transactions Involving the Legal Form of a Lease*. The standard sets out the principles for the recognition, measurement, presentation and disclosure of leases and requires lessees to recognise assets and liabilities for most leases. The standard includes two elective recognition exemptions for lessees – leases of low-value assets and short-term leases. At the commencement date of a lease, a lessee will recognise a liability to make lease payments and an asset representing the right to use the underlying asset during the lease term. The right-of-use asset is subsequently measured at cost less accumulated depreciation and any impairment losses unless the right-of-use asset meets the definition of investment property in IAS 40, or relates to a class of property, plant and equipment to which the revaluation model is applied. The lease liability is subsequently increased to reflect the interest on the lease liability and reduced for the lease payments. Lessees will be required to separately recognise the interest expense on the lease liability and the depreciation expense on the right-of-use asset. Lessees will also be required to remeasure the lease liability upon the occurrence of certain events, such as change in the lease term and change in future lease payments resulting from a change in an index or rate used to determine those payments. Lessees will generally recognise the amount of the remeasurement of the lease liability as an adjustment to the right-of-use asset. Lessor accounting under IFRS 16 is substantially unchanged from the accounting under IAS 17. Lessors will continue to classify all leases using the same classification principle as in IAS 17 and distinguish between operating leases and finance leases. IFRS 16 requires lessees and lessors to make more extensive disclosures than under IAS 17. Lessees can choose to apply the standard using either a full retrospective or a modified retrospective approach. The Group will adopt IFRS 16 from 1 January 2019.

# Notes to Financial Statements (Continued)

31 December 2018

## 2.3 ISSUED BUT NOT YET EFFECTIVE INTERNATIONAL FINANCIAL REPORTING STANDARDS (CONTINUED)

The Group plans to adopt the transitional provisions in IFRS 16 to recognise the cumulative effect of initial adoption as an adjustment to the opening balance of retained earnings at 1 January 2019 and will not restate the comparatives. In addition, the Group plans to apply the new requirements to contracts that were previously identified as leases applying IAS 17 and measure the lease liability at the present value of the remaining lease payments, discounted using the Group's incremental borrowing rate at the date of initial application. The right-of-use asset will be measured at the amount of the lease liability, adjusted by the amount of any prepaid or accrued lease payments relating to the lease recognised in the statement of financial position immediately before the date of initial application. The Group plans to use the exemptions allowed by the standard on lease contracts whose lease terms end within 12 months as of the date of initial application. During 2018, the Group has performed a preliminary assessment on the impact of adoption of IFRS 16. The Group has estimated that right-of-use assets of RMB400,452,000 and lease liabilities of RMB400,452,000 will be recognised at 1 January 2019.

Amendments to IAS 1 and IAS 8 provide a new definition of material. The new definition states that information is material if omitting, misstating or obscuring it could reasonably be expected to influence decisions that the primary users of general purpose financial statements make on the basis of those financial statements. The amendments clarify that materiality will depend on the nature or magnitude of information. A misstatement of information is material if it could reasonably be expected to influence decisions made by the primary users. The Group expects to adopt the amendments prospectively from 1 January 2020. The amendments are not expected to have any significant impact on the Group's financial statements.

# Notes to Financial Statements (Continued)

31 December 2018

## 2.3 ISSUED BUT NOT YET EFFECTIVE INTERNATIONAL FINANCIAL REPORTING STANDARDS (CONTINUED)

IFRIC Interpretation 23, addresses the accounting for income taxes (current and deferred) when tax treatments involve uncertainty that affects the application of IAS 12 (often referred to as “**uncertain tax positions**”). The interpretation does not apply to taxes or levies outside the scope of IAS 12, nor does it specifically include requirements relating to interest and penalties associated with uncertain tax treatments. The interpretation specifically addresses (i) whether an entity considers uncertain tax treatments separately; (ii) the assumptions an entity makes about the examination of tax treatments by taxation authorities; (iii) how an entity determines taxable profits or tax losses, tax bases, unused tax losses, unused tax credits and tax rates; and (iv) how an entity considers changes in facts and circumstances. The interpretation is to be applied retrospectively, either fully retrospectively without the use of hindsight or retrospectively with the cumulative effect of application as an adjustment to the opening equity at the date of initial application, without the restatement of comparative information. The Group expects to adopt the interpretation from 1 January 2019. The interpretation is not expected to have any significant impact on the Group’s financial statements.

Annual Improvements to IFRSs 2015–2017 Cycle sets out amendments to IFRS 3, IFRS 11, IAS 12 and IAS 23. The Group expects to adopt the amendments from 1 January 2019. None of the amendments are expected to have a significant financial impact on the Group. Details of the amendments that are expected to be applicable to the Group are as follows:

IFRS 3 *Business Combinations* clarifies that, when an entity obtains control of a business that is a joint operation, it must apply the requirements for a business combination achieved in stages and remeasure its entire previously held interest in the joint operation at fair value.

IAS 12 *Income Taxes* clarifies that an entity recognises all income tax consequences of dividends in profit or loss, other comprehensive income or equity, depending on where the entity recognised the originating transaction or event that generated the distributable profits giving rise to the dividend.

IAS 23 *Borrowing Costs* clarifies that an entity treats as part of general borrowings any specific borrowing originally made to develop a qualifying asset, and that is still outstanding, when substantially all of the activities necessary to prepare that asset for its intended use or sales are complete.

# Notes to Financial Statements (Continued)

31 December 2018

## 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

### Business combinations and goodwill

Business combinations not under common control are accounted for using the acquisition method. The consideration transferred is measured at the acquisition date fair value which is the sum of the acquisition date fair values of assets transferred by the Group, liabilities assumed 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. For each business combination, the Group elects whether to measure the non-controlling interests in the acquiree that are present ownership interests and entitle their holders to a proportionate share of net assets in the event of liquidation at fair value or at the proportionate share of the acquiree's identifiable net assets. All other components of non-controlling interests are measured at fair value. Acquisition-related costs are expensed as incurred.

When the Group acquires a business, it assesses the financial assets and liabilities assumed for appropriate classification and designation in accordance with the contractual terms, economic circumstances and pertinent conditions as at the acquisition date. This includes the separation of embedded derivatives in host contracts of the acquiree.

If the business combination is achieved in stages, the previously held equity interest is remeasured at its acquisition date fair value and any resulting gain or loss is recognised in profit or loss.

Any contingent consideration to be transferred by the acquirer is recognised at fair value at the acquisition date. Contingent consideration that is classified as equity is not remeasured and subsequent settlement is accounted for within equity.

# Notes to Financial Statements (Continued)

31 December 2018

## 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

### Business combinations and goodwill (Continued)

Goodwill is initially measured at cost, being the excess of the aggregate of the consideration transferred, the amount recognised for non-controlling interests and any fair value of the Group's previously held equity interests in the acquiree over the identifiable net assets acquired and liabilities assumed. If the sum of this consideration and other items is lower than the fair value of the net assets acquired, the difference is, after reassessment, recognised in profit or loss as a gain on bargain purchase.

After initial recognition, goodwill is measured at cost less any accumulated impairment losses. Goodwill is tested for impairment annually or more frequently if events or changes in circumstances indicate that the carrying value may be impaired. The Group performs its annual impairment test of goodwill as at 31 December. For the purpose of impairment testing, goodwill acquired in a business combination is, from the acquisition date, allocated to each of the Group's cash-generating units, or groups of cash-generating units, that are expected to benefit from the synergies of the combination, irrespective of whether other assets or liabilities of the Group are assigned to those units or groups of units.

Impairment is determined by assessing the recoverable amount of the cash-generating unit (group of cash-generating units) to which the goodwill relates. Where the recoverable amount of the cash-generating unit (group of cash-generating units) is less than the carrying amount, an impairment loss is recognised. An impairment loss recognised for goodwill is not reversed in a subsequent period.

Where goodwill has been allocated to a cash-generating unit (or group of cash-generating units) and part of the operation within that unit is disposed of, the goodwill associated with the operation disposed of is included in the carrying amount of the operation when determining the gain or loss on the disposal. Goodwill disposed of in these circumstances is measured based on the relative value of the operation disposed of and the portion of the cash-generating unit retained.

### Fair value measurement

The Group measures its equity investments at fair value at the end of each reporting period. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value measurement is based on the presumption that the transaction to sell the asset or transfer the liability takes place either in the principal market for the asset or liability, or in the absence of a principal market, in the most advantageous market for the asset or liability. The principal or the most advantageous market must be accessible by the Group. The fair value of an asset or a liability is measured using the assumptions that market participants would use when pricing the asset or liability, assuming that market participants act in their economic best interest.

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

The Group uses valuation techniques that are appropriate in the circumstances and for which sufficient data are available to measure fair value, maximising the use of relevant observable inputs and minimising the use of unobservable inputs.



# Notes to Financial Statements (Continued)

31 December 2018

## 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

### Fair value measurement (Continued)

All assets and liabilities for which fair value is measured or disclosed in the financial statements are categorised within the fair value hierarchy, described as follows, based on the lowest level input that is significant to the fair value measurement as a whole:

- Level 1 – based on quoted prices (unadjusted) in active markets for identical assets or liabilities
- Level 2 – based on valuation techniques for which the lowest level input that is significant to the fair value measurement is observable, either directly or indirectly
- Level 3 – based on valuation techniques for which the lowest level input that is significant to the fair value measurement is unobservable

For assets and liabilities that are recognised in the financial statements on a recurring basis, the Group determines whether transfers have occurred between levels in the hierarchy by reassessing categorization (based on the lowest level input that is significant to the fair value measurement as a whole) at the end of the reporting period.

### Impairment of non-financial assets

Where an indication of impairment exists, or when annual impairment testing for an asset is required (other than inventories, construction contract assets, financial assets and non-current assets/a disposal group classified as held for sale), the asset's recoverable amount is estimated. An asset's recoverable amount is the higher of the asset's or cash-generating unit's value in use and its fair value less costs of disposal, and is determined for an individual asset, unless the asset does not generate cash inflows that are largely independent of those from other assets or groups of assets, in which case the recoverable amount is determined for the cash-generating unit to which the asset belongs.

An impairment loss is recognised only if the carrying amount of an asset exceeds its recoverable amount. 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. An impairment loss is charged to profit or loss in the period in which it arises in those expense categories consistent with the function of the impaired asset.

An assessment is made at the end of each reporting period as to whether there is an indication that previously recognised impairment losses may no longer exist or may have decreased. If such an indication exists, the recoverable amount is estimated. A previously recognised impairment loss of an asset other than goodwill is reversed only if there has been a change in the estimates used to determine the recoverable amount of that asset, but not to an amount higher than the carrying amount that would have been determined (net of any depreciation/amortization) had no impairment loss been recognised for the asset in prior years. A reversal of such an impairment loss is credited to profit or loss in the period in which it arises, (only if there are revalued assets in the financial statements) unless the asset is carried at a revalued amount, in which case the reversal of the impairment loss is accounted for in accordance with the relevant accounting policy for that revalued asset.

# Notes to Financial Statements (Continued)

31 December 2018

## 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

### Related parties

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

- (a) the party is a person or a close member of that person's family and that person:
  - (i) has control or joint control over the Group;
  - (ii) has significant influence over the Group; or
  - (iii) is a member of the key management personnel of the Group or of a parent of the Group;

or

- (b) the party is an entity where any of the following conditions applies:
  - (i) the entity and the Group are members of the same group;
  - (ii) one entity is an associate or joint venture of the other entity (or of a parent, subsidiary or fellow subsidiary of the other entity);
  - (iii) the entity and the Group are joint ventures of the same third party;
  - (iv) one entity is a joint venture of a third entity and the other entity is an associate of the third entity;
  - (v) the entity is a post-employment benefit plan for the benefit of employees of either the Group or an entity related to the Group;
  - (vi) the entity is controlled or jointly controlled by a person identified in (a);
  - (vii) a person identified in (a) (i) has significant influence over the entity or is a member of the key management personnel of the entity (or of a parent of the entity); and
  - (viii) the entity, or any member of a group of which it is a part, provides key management personnel services to the Group or to the parent of the Group.

# Notes to Financial Statements (Continued)

31 December 2018

## 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

### Property, plant and equipment and depreciation

Property, plant and equipment, other than construction in progress, are stated at cost less accumulated depreciation and any impairment losses. When an item of property, plant and equipment is classified as held for sale or when it is part of a disposal group classified as held for sale, it is not depreciated and is accounted for in accordance with IFRS 5. The cost of an item of property, plant and equipment comprises its purchase price and any directly attributable costs of bringing the asset to its working condition and location for its intended use.

Expenditure incurred after items of property, plant and equipment have been put into operation, such as repairs and maintenance, is normally charged to profit or loss in the period in which it is incurred. In situations where the recognition criteria are satisfied, the expenditure for a major inspection is capitalised in the carrying amount of the asset as a replacement. Where significant parts of property, plant and equipment are required to be replaced at intervals, the Group recognises such parts as individual assets with specific useful lives and depreciates them accordingly.

Depreciation is calculated on the straight-line basis to write off the cost of each item of property, plant and equipment to its residual value over its estimated useful life. The principal annual rates used for this purpose are as follows:

Buildings and other infrastructure	3.17%
Machinery	5.71%–6.33%
Transportation vehicles	15.83%
Office equipment and others	9.50%–19.00%

Where parts of an item of property, plant and equipment have different useful lives, the cost of that item is allocated on a reasonable basis among the parts and each part is depreciated separately. Residual values, useful lives and the depreciation method are reviewed, and adjusted if appropriate, at least at each financial year end.

An item of property, plant and equipment including any significant part initially recognised is derecognised upon disposal or when no future economic benefits are expected from its use or disposal. Any gain or loss on disposal or retirement recognised in profit or loss in the year the asset is derecognised is the difference between the net sales proceeds and the carrying amount of the relevant asset.

Construction in progress represents plants under construction and equipment being installed, which are stated at cost less any impairment losses, and are not depreciated. Cost comprises the direct costs of construction and capitalized borrowing costs on related borrowed funds during the period of construction. Construction in progress is reclassified to the appropriate category of property, plant and equipment when completed and ready for use.

# Notes to Financial Statements (Continued)

31 December 2018

## 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

### **Intangible assets (other than goodwill)**

Intangible assets acquired separately are measured on initial recognition at cost. The cost of intangible assets acquired in a business combination is the fair value at the date of acquisition. The useful lives of intangible assets are assessed to be either finite or indefinite. Intangible assets with finite lives are subsequently amortized over the useful economic life and assessed for impairment whenever there is an indication that the intangible asset may be impaired. The amortization period and the amortization method for an intangible asset with a finite useful life are reviewed at least at each financial year end.

#### ***Software***

Purchased software is stated at cost less any impairment losses and is amortized on the straight-line basis over its estimated useful life of 10 years.

#### ***Patents***

Purchased patents are stated at cost less any impairment losses and are amortized on the straight-line basis over their estimated useful lives of 10 years.

#### ***Non-patent technology***

Non-patent technology is stated at cost less any impairment losses and is amortized on the straight-line basis over its estimated useful life of 10 years.

### **Research and development costs**

All research costs are charged to the statement of profit or loss as incurred.

Expenditure incurred on projects to develop new products is capitalised and deferred only when the Group can demonstrate the technical feasibility of completing the intangible asset so that it will be available for use or sale, its intention to complete and its ability to use or sell the asset, how the asset will generate future economic benefits, the availability of resources to complete the project and the ability to measure reliably the expenditure during the development. Product development expenditure which does not meet these criteria is expensed when incurred.

Development expenditures that have been recorded in profit or loss in previous periods will not be recognised as assets in subsequent periods. Capitalized development expenditures are included in property, plant and equipment and intangible assets as appropriate according to their nature.

### **Prepaid land lease payments**

Purchased land use rights are accounted for as prepaid land lease payments. For self-development and constructed plants and buildings, the expenditures of land use rights and construction costs of plant and buildings are accounted for as prepaid land lease payments and fixed assets respectively. For acquired plant and buildings, the consideration shall be allocated between land use rights and plant and buildings. If the consideration cannot be allocated reasonably, the consideration shall be accounted for as fixed assets. Purchased lands are stated at cost less any impairment losses and are amortized on the straight-line basis over their estimated useful lives of 50 years.

# Notes to Financial Statements (Continued)

31 December 2018

## 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

### Operating leases

Leases where substantially all the rewards and risks of ownership of assets remain with the lessor are accounted for as operating leases. Where the Group is the lessor, assets leased by the Group under operating leases are included in non-current assets, and rentals receivable under the operating leases are credited to profit or loss on the straight-line basis over the lease terms. Where the Group is the lessee, rentals payable under operating leases net of any incentives received from the lessor are charged to profit or loss on the straight-line basis over the lease terms.

When the lease payments cannot be allocated reliably between the land and buildings elements, the entire lease payments are included in the cost of the land and buildings as a finance lease in property, plant and equipment.

### Investments and other financial assets (policies under IFRS 9 applicable from 1 January 2018)

#### *Initial recognition and measurement*

Financial assets are classified, at initial recognition, as subsequently measured at amortised cost, fair value through other comprehensive income and fair value through profit or loss by the Group.

The classification of financial assets at initial recognition depends on the financial asset's contractual cash flow characteristics and the Group's business model for managing them. With the exception of trade receivables that do not contain a significant financing component or for which the Group has applied the practical expedient of not adjusting the effect of a significant financing component, the Group initially measures a financial asset at its fair value, plus in the case of a financial asset not at fair value through profit or loss, transaction costs. Trade receivables that do not contain a significant financing component or for which the Group has applied the practical expedient are measured at the transaction price determined under IFRS 15 in accordance with the policies set out for section "Revenue recognition (applicable from 1 January 2018)" below.

In order for a financial asset to be classified and measured at amortised cost or fair value through other comprehensive income, it needs to give rise to cash flows that are solely payments of principal and interest ("**SPPI**") on the principal amount outstanding.

The Group's business model for managing financial assets refers to how it manages its financial assets in order to generate cash flows. The business model determines whether cash flows will result from collecting contractual cash flows, selling the financial assets, or both.

All regular way purchases and sales of financial assets are recognised on the trade date, that is, the date that the Group commits to purchase or sell the asset. Regular way purchases or sales are purchases or sales of financial assets that require delivery of assets within the period generally established by regulation or convention in the marketplace.

# Notes to Financial Statements (Continued)

31 December 2018

## 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

### Investments and other financial assets (policies under IFRS 9 applicable from 1 January 2018) (Continued)

#### ***Subsequent measurement***

The subsequent measurement of financial assets depends on their classification as follows:

(i) *Financial assets at amortised cost (debt instruments)*

The Group measures financial assets at amortised cost if both of the following conditions are met:

- The financial asset is held within a business model with the objective to hold financial assets in order to collect contractual cash flows.
- The contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Financial assets at amortised cost are subsequently measured using the effective interest method and are subject to impairment. Gains and losses are recognised in the statement of profit or loss when the asset is derecognised, modified or impaired.

(ii) *Financial assets designated at fair value through other comprehensive income (equity investments)*

Upon initial recognition, the Group can elect to classify irrevocably its equity investments as equity investments designated at fair value through other comprehensive income when they meet the definition of equity under IAS 32 Financial Instruments: Presentation and are not held for trading. The classification is determined on an instrument-by-instrument basis.

Gains and losses on these financial assets are never recycled to the statement of profit or loss. Dividends are recognised as other income in the statement of profit or loss when the right of payment has been established, it is probable that the economic benefits associated with the dividend will flow to the Group and the amount of the dividend can be measured reliably, except when the Group benefits from such proceeds as a recovery of part of the cost of the financial asset, in which case, such gains are recorded in other comprehensive income. Equity investments designated at fair value through other comprehensive income are not subject to impairment assessment.

# Notes to Financial Statements (Continued)

31 December 2018

## 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

### **Investments and other financial assets (policies under IAS 39 applicable before 1 January 2018)**

#### ***Initial recognition and measurement***

Financial assets are classified, at initial recognition, as financial assets at fair value through profit or loss, loans and receivables and available-for-sale financial investments, or as derivatives designated as hedging instruments in an effective hedge, as appropriate. When financial assets are recognised initially, they are measured at fair value plus transaction costs that are attributable to the acquisition of the financial assets, except in the case of financial assets recorded at fair value through profit or loss.

All regular way purchases and sales of financial assets are recognised on the trade date, that is, the date that the Group commits to purchase or sell the asset. Regular way purchases or sales are purchases or sales of financial assets that require delivery of assets within the period generally established by regulation or convention in the marketplace.

#### ***Subsequent measurement***

The subsequent measurement of financial assets depends on their classification as follows:

#### ***Loans and receivables***

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. After initial measurement, such assets are subsequently measured at amortised cost using the effective interest rate method less any allowance for impairment. Amortised cost is calculated by taking into account any discount or premium on acquisition and includes fees or costs that are an integral part of the effective interest rate. The effective interest rate amortisation is included in other income and gains in the statement of profit or loss. The loss arising from impairment is recognised in the statement of profit or loss in finance costs for loans and in other expenses for receivables.

## 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

### Investments and other financial assets (policies under IAS 39 applicable before 1 January 2018) (Continued)

#### ***Available-for-sale financial investments***

Available-for-sale financial investments are non-derivative financial assets in listed and unlisted equity investments and debt securities. Equity investments classified as available for sale are those which are neither classified as held for trading nor designated as at fair value through profit or loss. Debt securities in this category are those which are intended to be held for an indefinite period of time and which may be sold in response to needs for liquidity or in response to changes in market conditions.

After initial recognition, available-for-sale financial investments are subsequently measured at fair value, with unrealised gains or losses recognised as other comprehensive income in the available-for-sale investment revaluation reserve until the investment is derecognised, at which time the cumulative gain or loss is recognised in the statement of profit or loss in other income, or until the investment is determined to be impaired, when the cumulative gain or loss is reclassified from the available-for-sale investment revaluation reserve to the statement of profit or loss in other gains or losses. Interest and dividends earned whilst holding the available-for-sale financial investments are reported as interest income and dividend income, respectively and are recognised in the statement of profit or loss as other income in accordance with the policies set out for "Revenue recognition (applicable before 1 January 2018)" below.

When the fair value of unlisted equity investments cannot be reliably measured because (a) the variability in the range of reasonable fair value estimates is significant for that investment or (b) the probabilities of the various estimates within the range cannot be reasonably assessed and used in estimating fair value, such investments are stated at cost less any impairment losses.

The Group evaluates whether the ability and intention to sell its available-for-sale financial assets in the near term are still appropriate. When, in rare circumstances, the Group is unable to trade these financial assets due to inactive markets, the Group may elect to reclassify these financial assets if management has the ability and intention to hold the assets for the foreseeable future or until maturity.

For a financial asset reclassified from the available-for-sale category, the fair value carrying amount at the date of reclassification becomes its new amortised cost and any previous gain or loss on that asset that has been recognised in equity is amortised to profit or loss over the remaining life of the investment using the effective interest rate. Any difference between the new amortised cost and the maturity amount is also amortised over the remaining life of the asset using the effective interest rate. If the asset is subsequently determined to be impaired, then the amount recorded in equity is reclassified to the statement of profit or loss.



# Notes to Financial Statements (Continued)

31 December 2018

## 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

### **Derecognition of financial assets (policies under IFRS 9 applicable from 1 January 2018 and policies under IAS 39 applicable before 1 January 2018)**

A financial asset (or, where applicable, a part of a financial asset or part of a group of similar financial assets) is primarily derecognised (i.e., removed from the Group's consolidated statements of financial position) when:

- the rights to receive cash flows from the asset have expired; or
- the Group has transferred its rights to receive cash flows from the asset or has assumed an obligation to pay the received cash flows in full without material delay to a third party under a "pass-through" arrangement; and either (a) the Group has transferred substantially all the risks and rewards of the asset, or (b) the Group has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset.

When the Group has transferred its rights to receive cash flows from an asset or has entered into a pass-through arrangement, it evaluates if, and to what extent, it has retained the risks and rewards of ownership of the asset. When it has neither transferred nor retained substantially all the risks and rewards of the asset nor transferred control of the asset, the Group continues to recognise the transferred asset to the extent of the Group's continuing involvement. In that case, the Group also recognises an associated liability. The transferred asset and the associated liability are measured on a basis that reflects the rights and obligations that the Group has retained.

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

### **Impairment of financial assets (policies under IFRS 9 applicable from 1 January 2018)**

The Group recognises an allowance for ECLs for all debt instruments not held at fair value through profit or loss. ECLs are based on the difference between the contractual cash flows due in accordance with the contract and all the cash flows that the Group expects to receive, discounted at an approximation of the original effective interest rate. The expected cash flows will include cash flows from the sale of collateral held or other credit enhancements that are integral to the contractual terms.

## 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

### Impairment of financial assets (policies under IFRS 9 applicable from 1 January 2018) (Continued)

#### ***General approach***

ECLs are recognised in two stages. For credit exposures for which there has not been a significant increase in credit risk since initial recognition, ECLs are provided for credit losses that result from default events that are possible within the next 12 months (a 12-month ECL). For those credit exposures for which there has been a significant increase in credit risk since initial recognition, a loss allowance is required for credit losses expected over the remaining life of the exposure, irrespective of the timing of the default (a lifetime ECL).

At each reporting date, the Group assesses whether the credit risk on a financial instrument has increased significantly since initial recognition. When making the assessment, the Group compares the risk of a default occurring on the financial instrument as at the reporting date with the risk of a default occurring on the financial instrument as at the date of initial recognition and considers reasonable and supportable information that is available without undue cost or effort, including historical and forward-looking information.

The Group considers a financial asset in default when contractual payments are 30 to 90 days past due. However, in certain cases, the Group may also consider a financial asset to be in default when internal or external information indicates that the Group is unlikely to receive the outstanding contractual amounts in full before taking into account any credit enhancements held by the Group. A financial asset is written off when there is no reasonable expectation of recovering the contractual cash flows.

#### ***Simplified approach***

For trade receivables and contract assets that do not contain a significant financing component or when the Group applies the practical expedient of not adjusting the effect of a significant financing component, the Group applies the simplified approach in calculating ECLs. Under the simplified approach, the Group does not track changes in credit risk, but instead recognises a loss allowance based on lifetime ECLs at each reporting date. The Group has established a provision matrix that is based on its historical credit loss experience, adjusted for forward-looking factors specific to the debtors and the economic environment.

For trade receivables and contract assets, the Group chooses as its accounting policy to adopt the simplified approach in calculating ECLs with policies as described above.

# Notes to Financial Statements (Continued)

31 December 2018

## 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

### **Impairment of financial assets (policies under IAS 39 applicable before 1 January 2018) (Continued)**

The Group assesses at the end of each reporting period whether there is objective evidence that a financial asset or a group of financial assets is impaired. An impairment exists if one or more events that occurred after the initial recognition of the asset have an impact on the estimated future cash flows of the financial asset or the group of financial assets that can be reliably estimated. Evidence of impairment may include indications that a debtor or a group of debtors is experiencing significant financial difficulty, default or delinquency in interest or principal payments, the probability that they will enter bankruptcy or other financial reorganisation and observable data indicating that there is a measurable decrease in the estimated future cash flows, such as changes in arrears or economic conditions that correlate with defaults.

#### ***Financial assets carried at amortised cost***

For financial assets carried at amortised cost, the Group first assesses whether impairment exists individually for financial assets that are individually significant, or collectively for financial assets that are not individually significant. If the Group determines that no objective evidence of impairment exists for an individually assessed financial asset, whether significant or not, it includes the asset in a group of financial assets with similar credit risk characteristics and collectively assesses them for impairment. Assets that are individually assessed for impairment and for which an impairment loss is, or continues to be, recognised are not included in a collective assessment of impairment.

The amount of any impairment loss identified is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows (excluding future credit losses that have not yet been incurred). The present value of the estimated future cash flows is discounted at the financial asset's original effective interest rate (i.e., the effective interest rate computed at initial recognition).

The carrying amount of the asset is reduced through the use of an allowance account and the loss is recognised in the statement of profit or loss. Interest income continues to be accrued on the reduced carrying amount using the rate of interest used to discount the future cash flows for the purpose of measuring the impairment loss. Loans and receivables together with any associated allowance are written off when there is no realistic prospect of future recovery and all collateral has been realised or has been transferred to the Group.

If, in a subsequent period, the amount of the estimated impairment loss increases or decreases because of an event occurring after the impairment was recognised, the previously recognised impairment loss is increased or reduced by adjusting the allowance account. If a write-off is later recovered, the recovery is credited to other expenses in the statement of profit or loss.

# Notes to Financial Statements (Continued)

31 December 2018

## 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

### Impairment of financial assets (policies under IAS 39 applicable before 1 January 2018) (Continued)

#### *Available-for-sale financial investments*

For available-for-sale financial investments, the Group assesses at the end of each reporting period whether there is objective evidence that an investment or a group of investments is impaired.

If an available-for-sale asset is impaired, an amount comprising the difference between its cost (net of any principal payment and amortisation) and its current fair value, less any impairment loss previously recognised in the statement of profit or loss, is removed from other comprehensive income and recognised in the statement of profit or loss.

In the case of equity investments classified as available for sale, objective evidence would include a significant or prolonged decline in the fair value of an investment below its cost. "Significant" is evaluated against the original cost of the investment and "prolonged" against the period in which the fair value has been below its original cost. Where there is evidence of impairment, the cumulative loss – measured as the difference between the acquisition cost and the current fair value, less any impairment loss on that investment previously recognised in the statement of profit or loss – is removed from other comprehensive income and recognised in the statement of profit or loss. Impairment losses on equity instruments classified as available for sale are not reversed through the statement of profit or loss. Increases in their fair value after impairment are recognised directly in other comprehensive income.

The determination of what is "significant" or "prolonged" requires judgement. In making this judgement, the Group evaluates, among other factors, the duration or extent to which the fair value of an investment is less than its cost.

### Financial liabilities (policies under IFRS 9 applicable from 1 January 2018 and IAS 39 applicable before 1 January 2018)

#### *Initial recognition and measurement*

Financial liabilities are classified, at initial recognition, as loans and borrowings and payables by the Group as appropriate.

All financial liabilities are recognised initially at fair value and, in the case of loans and borrowings and payables, net of directly attributable transaction costs.

The Group's financial liabilities include trade and other payables and interest-bearing bank borrowings and other loans.

# Notes to Financial Statements (Continued)

31 December 2018

## 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

### **Financial liabilities (policies under IFRS 9 applicable from 1 January 2018 and IAS 39 applicable before 1 January 2018) (Continued)**

#### ***Subsequent measurement***

The subsequent measurement of financial liabilities depends on their classification as follows:

#### *Loans and borrowings*

After initial recognition, interest-bearing loans and borrowings are subsequently measured at amortized cost, using the effective interest rate method unless the effect of discounting would be immaterial, in which case they are stated at cost. Gains and losses are recognised in profit or loss when the liabilities are derecognised as well as through the effective interest rate amortization process.

Amortized cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the effective interest rate. The effective interest rate amortization is included in finance costs in profit or loss.

### **Derecognition of financial liabilities (policies under IFRS 9 applicable from 1 January 2018 and IAS 39 applicable before 1 January 2018)**

A financial liability is derecognised when the obligation under the liability is discharged or cancelled, or expires.

When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as a derecognition of the original liability and a recognition of a new liability, and the difference between the respective carrying amounts is recognised in profit or loss.

### **Offsetting of financial instruments (policies under IFRS 9 applicable from 1 January 2018 and IAS 39 applicable before 1 January 2018)**

Financial assets and financial liabilities are offset and the net amount is reported in the consolidated statement of financial position if there is a currently enforceable legal right to offset the recognised amounts and there is an intention to settle on a net basis, or to realize the assets and settle the liabilities simultaneously.

#### **Inventories**

Inventories are stated at the lower of cost and net realizable value. Cost is determined on the first-in, first-out basis and, in the case of work in progress and finished goods, comprises direct materials, direct labour and an appropriate proportion of overheads. Net realizable value is based on estimated selling prices less any estimated costs to be incurred to completion and disposal.

# Notes to Financial Statements (Continued)

31 December 2018

## 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

### Cash and cash equivalents

For the purpose of the consolidated statement of cash flows, cash and cash equivalents comprise cash on hand and demand deposits, and short term highly liquid investments that are readily convertible into known amounts of cash, are subject to an insignificant risk of changes in value, and have a short maturity of generally within six months when acquired, less bank overdrafts which are repayable on demand and form an integral part of the Group's cash management.

For the purpose of the consolidated statement of financial position, cash and cash equivalents comprise cash on hand and at banks, which are not restricted as to use.

### Provisions

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

When the effect of discounting is material, the amount recognised for a provision is the present value at the date of the consolidated statement of financial position of the future expenditures expected to be required to settle the obligation. The increase in the discounted present value amount arising from the passage of time is included in finance costs in profit or loss.

The Group provides for warranties in relation to the sale of certain goods for general repairs of defects occurring during the warranty period. Provisions for these assurance-type granted by the Group are recognised based on sales volume and past experience of the level of repairs and returns, discounted to their present values as appropriate.

### Income tax

Income tax comprises current and deferred tax. Income tax relating to items recognised outside profit or loss is recognised outside profit or loss, either in other comprehensive income or directly in equity.

Current tax assets and liabilities are measured at the amount expected to be recovered from or paid to the taxation authorities, based on tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period, taking into consideration interpretations and practices prevailing in the countries in which the Group operates.

Deferred tax is provided, using the liability method, on all temporary differences at the end of the reporting period between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes.

# Notes to Financial Statements (Continued)

31 December 2018

## 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

### Income tax (Continued)

Deferred tax liabilities are recognised for all taxable temporary differences, except:

- when the deferred tax liability arises from the initial recognition of goodwill or an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss; and
- in respect of taxable temporary differences associated with investments in subsidiaries, when the timing of the reversal of the temporary differences can be controlled and it is probable that the temporary differences will not reverse in the foreseeable future.

Deferred tax assets are recognised for all deductible temporary differences, the carryforward of unused tax credits and any unused tax losses. Deferred tax assets are recognised to the extent that it is probable that taxable profit will be available against which the deductible temporary differences, the carryforward of unused tax credits and unused tax losses can be utilized, except:

- when the deferred tax asset relating to the deductible temporary differences arises from the initial recognition of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss; and
- in respect of deductible temporary differences associated with investments in subsidiaries, deferred tax assets are only recognised to the extent that it is probable that the temporary differences will reverse in the foreseeable future and taxable profit will be available against which the temporary differences can be utilized.

The carrying amount of deferred tax assets is reviewed at the end of the reporting period and reduced to the extent that it is no longer probable that sufficient taxable profit will be available to allow all or part of the deferred tax asset to be utilized. Unrecognised deferred tax assets are reassessed at the end of the reporting period and are recognised to the extent that it has become probable that sufficient taxable profit will be available to allow all or part of the deferred tax asset to be recovered.

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

Deferred tax assets and deferred tax liabilities are offset if and only if the Group has a legally enforceable right to set off current tax assets and current tax liabilities and the deferred tax assets and deferred tax liabilities relate to income taxes levied by the same taxation authority on either the same taxable entity or different taxable entities which intend either to settle current tax liabilities and assets on a net basis, or to realise the assets and settle the liabilities simultaneously, in each future period in which significant amounts of deferred tax liabilities or assets are expected to be settled or recovered.

# Notes to Financial Statements (Continued)

31 December 2018

## 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

### Government grants

Government grants are recognised at their fair value where there is reasonable assurance that the grant will be received and all attaching conditions will be complied with. When the grant relates to an expense item, it is recognised as income on a systematic basis over the periods that the costs, which it is intended to compensate, are expensed.

Where the grant relates to an asset, the fair value is credited to a deferred income account and is released to profit or loss over the expected useful life of the relevant asset by equal annual instalments or deducted from the carrying amount of the asset and released to profit or loss by way of a reduced depreciation charge.

### Revenue recognition (applicable from 1 January 2018)

#### *Revenue from contracts with customers*

Revenue from contracts with customers is recognised when control of goods or services is transferred to the customers at an amount that reflects the consideration to which the Group expects to be entitled in exchange for those goods or services.

When the consideration in a contract includes a variable amount, the amount of consideration is estimated to which the Group will be entitled in exchange for transferring the goods or services to the customer. The variable consideration is estimated at contract inception and constrained until it is highly probable that a significant revenue reversal in the amount of cumulative revenue recognised will not occur when the associated uncertainty with the variable consideration is subsequently resolved.

When the contract contains a financing component which provides the customer a significant benefit of financing the transfer of goods or services to the customer for more than one year, revenue is measured at the present value of the amount receivable, discounted using the discount rate that would be reflected in a separate financing transaction between the Group and the customer at contract inception. When the contract contains a financing component which provides the Group a significant financial benefit for more than one year, revenue recognised under the contract includes the interest expense accreted on the contract liability under the effective interest method. For a contract where the period between the payment by the customer and the transfer of the promised goods or services is one year or less, the transaction price is not adjusted for the effects of a significant financing component, using the practical expedient in IFRS 15.

#### *(a) Sale of goods*

The Group is engaged in the manufacture and sale of denitrification catalysts. Revenue from the sale of goods is recognised at the point in time when control of the asset is transferred to the customer, generally on delivery of the goods.



# Notes to Financial Statements (Continued)

31 December 2018

## 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

### Revenue recognition (applicable from 1 January 2018) (Continued)

#### ***Revenue from contracts with customers (Continued)***

##### *(b) Construction contracts*

The Group provides construction services with respect to the engineering projects in relation to desulfurization and denitrification facilities at coal-fired power plants, wind power plants, solar power plants, coal-fired power plants and coal yards. Revenue from the provision of construction services is recognised over time, using an input method to measure progress towards complete satisfaction of the service, because the Group's performance creates or enhances an asset that the customer controls as the asset is created or enhanced. The input method recognises revenue based on the proportions of the actual costs incurred relative to the estimated total costs for satisfaction of the construction services.

Claims to customers are amounts that the Group seeks to collect from the customers as reimbursement of costs and margins for scope of works not included in the original construction contract. Claims are accounted for as variable consideration and constrained until it is highly probable that a significant revenue reversal in the amount of cumulative revenue recognised will not occur when the associated uncertainty with the variable consideration is subsequently resolved. The Group uses the expected value method to estimate the amounts of claims because this method best predicts the amount of variable consideration to which the Group will be entitled.

##### *(c) Rendering of desulfurization and denitrification services*

The Group is engaged in providing desulfurization and denitrification services to power plants under the concession operation contracts for a period of the life cycle of the power plants. The service revenues are recognised at an on-grid tariff of a certain amount per kWh for the electricity generated by the power plants. Costs of rendering services comprise labor cost, water and electric cost and other costs of personnel directly engaged in providing the services and attributable overheads.

#### ***Revenue from other sources***

Rental income is recognised on a time proportion basis over the lease terms.

## 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

### Revenue recognition (applicable from 1 January 2018) (Continued)

#### *Revenue from other sources (Continued)*

##### *Other income*

Interest income is recognised on an accrual basis using the effective interest method by applying the rate that exactly discounts the estimated future cash receipts over the expected life of the financial instrument or a shorter period, when appropriate, to the net carrying amount of the financial asset.

Dividend income is recognised when the shareholders' right to receive payment has been established, it is probable that the economic benefits associated with the dividend will flow to the Group and the amount of the dividend can be measured reliably.

### Revenue recognition (applicable before 1 January 2018)

Revenue is recognised when it is probable that the economic benefits will flow to the Group and when the revenue can be measured reliably, on the following bases:

- (a) From the sale of goods, when the significant risks and rewards of ownership have been transferred to the buyer, provided that the Group maintains neither managerial involvement to the degree usually associated with ownership, nor effective control over the goods sold;
- (b) From construction contracts, on the percentage of completion basis, as further explained in the accounting policy for "Construction contracts (applicable before 1 January 2018)" below;
- (c) From the rendering of services, on the percentage of completion basis, as further explained in the accounting policy for "Contracts for services (applicable before 1 January 2018)" below;
- (d) Rental income, on a time proportion basis over the lease terms;
- (e) Interest income, on an accrual basis using the effective interest method by applying the rate that exactly discounts the estimated future cash receipts over the expected life of the financial instrument or a shorter period, when appropriate, to the net carrying amount of the financial asset; and
- (f) Dividend income, when the shareholders' right to receive payment has been established.

### Contract assets (applicable from 1 January 2018)

A contract asset is the right to consideration in exchange for goods or services transferred to the customer. If the Group performs by transferring goods or services to a customer before the customer pays consideration or before payment is due, a contract asset is recognised for the earned consideration that is conditional.

### Contract liabilities (applicable from 1 January 2018)

A contract liability is the obligation to transfer goods or services to a customer for which the Group has received a consideration (or an amount of consideration that is due) from the customer. If a customer pays the consideration before the Group transfers goods or services to the customer, a contract liability is recognised when the payment is made or the payment is due (whichever is earlier). Contract liabilities are recognised as revenue when the Group performs under the contract.

# Notes to Financial Statements (Continued)

31 December 2018

## 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

### Construction contracts (applicable before 1 January 2018)

Contract revenue comprises the agreed contract amount and appropriate amounts from variation orders, claims and incentive payments. Contract costs incurred comprise direct materials, the costs of subcontracting, direct labour and an appropriate proportion of variable and fixed construction overheads.

Revenue from fixed price construction contracts is recognised using the percentage of completion method, measured by reference to the proportion of costs incurred to date to the estimated total cost of the relevant contract.

Revenue from cost plus construction contracts is recognised using the percentage of completion method, by reference to the recoverable costs incurred during the period plus the related fee earned, measured by the proportion of costs incurred to date to the estimated total cost of the relevant contract.

Provision is made for foreseeable losses as soon as they are anticipated by management. Where contract costs incurred to date plus recognised profits less recognised losses exceed progress billings, the surplus is treated as an amount due from contract customers. Where progress billings exceed contract costs incurred to date plus recognised profits less recognised losses, the surplus is treated as an amount due to contract customers.

### Contracts for services (applicable before 1 January 2018)

Contract revenue on the rendering of services comprises the agreed contract amount. Costs of rendering services comprise labour and other costs of personnel directly engaged in providing the services and attributable overheads.

Revenue from the rendering of services is recognised based on the percentage of completion of the transaction, provided that the revenue, the costs incurred and the estimated costs to completion can be measured reliably. The percentage of completion is established by reference to the costs incurred to date as compared to the total costs to be incurred under the transaction. Where the outcome of a contract cannot be measured reliably, revenue is recognised only to the extent that the expenses incurred are eligible to be recovered.

Provision is made for foreseeable losses as soon as they are anticipated by management. Where contract costs incurred to date plus recognised profits less recognised losses exceed progress billings, the surplus is treated as an amount due from contract customers. Where progress billings exceed contract costs incurred to date plus recognised profits less recognised losses, the surplus is treated as an amount due to contract customers.

# Notes to Financial Statements (Continued)

31 December 2018

## 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

### Borrowing costs

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, i.e., assets that necessarily take a substantial period of time to get ready for their intended use or sale, are capitalized as part of the cost of those assets. The capitalization of such borrowing costs ceases when the assets are substantially ready for their intended use or sale. Investment income earned on the temporary investment of specific borrowings pending their expenditure on qualifying assets is deducted from the borrowing costs capitalized. All other borrowing costs are expensed in the period in which they are incurred. Borrowing costs consist of interest and other costs that an entity incurs in connection with the borrowing of funds.

Where funds have been borrowed generally, and used for the purpose of obtaining qualifying assets, a capitalisation rate ranging between 3.92% and 7.50% has been applied to the expenditure on the individual assets.

### Dividend distribution

Final dividends are recognised as a liability when they are approved by the shareholders in a general meeting. Proposed final dividends are disclosed in the notes to the financial statements.

### Foreign currencies

These financial statements are presented in RMB, which is the Company's functional and presentation currency. Each entity in the Group determines its own functional currency and items included in the financial statements of each entity are measured using that functional currency. Foreign currency transactions recorded by the entities in the Group are initially recorded using their respective functional currency rates prevailing at the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies are translated at the functional currency rates of exchange ruling at the end of the reporting period. Differences arising on settlement or translation of monetary items are recognised in profit or loss.

Differences arising on settlement or translation of monetary items are recognised in the statement of profit or loss.

Non-monetary items that are measured in terms of historical cost in a foreign currency are translated using the exchange rates at the dates of the initial transactions. Non-monetary items measured at fair value in a foreign currency are translated using the exchange rates at the date when the fair value was measured. The gain or loss arising on translation of a non-monetary item measured at fair value is treated in line with the recognition of the gain or loss on change in fair value of the item (i.e., translation difference on the item whose fair value gain or loss is recognised in other comprehensive income or profit or loss is also recognised in other comprehensive income or profit or loss, respectively).

In determining the exchange rate on initial recognition of the related asset, expense or income on the derecognition of a non-monetary asset or non-monetary liability relating to an advance consideration, the date of initial transaction is the date on which the Group initially recognises the non-monetary asset or non-monetary liability arising from the advance consideration. If there are multiple payments or receipts in advance, the Group determines the transaction date for each payment or receipt of the advance consideration.

# Notes to Financial Statements (Continued)

31 December 2018

## 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

### Foreign currencies (Continued)

The functional currencies of certain overseas subsidiaries are currencies other than RMB. As at the end of the reporting period, the assets and liabilities of these entities are translated into the presentation currency of the Company at the exchange rates prevailing at the end of the reporting period and the consolidated statements of profit or loss and other comprehensive income of these subsidiaries are translated into RMB at the weighted average exchange rates for the year.

The resulting exchange differences are recognised in the consolidated statement of profit or loss and other comprehensive income and accumulated in the exchange fluctuation reserve. On disposal of a foreign operation, the component of other comprehensive income relating to that particular foreign operation is recognised in profit or loss.

For the purpose of the consolidated statement of cash flows, the cash flows of an overseas subsidiary are translated into RMB at the exchange rates ruling at the dates of the cash flows. Frequently recurring cash flows of an overseas subsidiary which arise throughout the year are translated into RMB at the weighted average exchange rates.

### Employee benefits

Employee benefits mainly include salaries, bonuses, allowances and subsidies, pension insurance, social insurance and housing funds, labor union fees, employees' education fees and other expenses related to the employees for their services. The Group recognises employee benefits as liabilities during the accounting period when employees render the services and allocates the related cost of assets and expenses based on different beneficiaries.

#### (a) Bonus plans

The expected cost of bonus plans is recognised as a liability when the Group has a present legal or constructive obligation as a result of services rendered by employees and a reliable estimate of the obligation can be made.

#### (b) Retirement benefit obligations

The Group primarily pays contributions on a monthly basis to participate in a pension plan organized by relevant municipal and provincial governments in the PRC. The municipal and provincial governments undertake to assume the retirement benefit obligations of all existing and future retired employees payable under these plans. The Group has no legal or constructive obligations for further contributions if the fund does not hold sufficient assets to pay all employees the benefits relating to their current and past services.

#### (c) Other social insurance and housing funds

The Group provides other social insurance and housing funds to the qualified employees in the PRC based on certain percentages of their salaries. These percentages are not to exceed the upper limits of the percentages prescribed by the Ministry of Human Resources and Social Security of the PRC. These benefits are paid to social security organizations and the amounts are expensed as incurred. The Group has no legal or constructive obligations for further contributions if the fund does not hold sufficient assets to pay all employees the benefits relating to their current and past services.

# Notes to Financial Statements (Continued)

31 December 2018

## 3. SIGNIFICANT ACCOUNTING JUDGEMENTS AND ESTIMATES

The preparation of the Group's financial statements requires management to make judgements, estimates and assumptions that affect the reported amounts of revenues, expenses, assets and liabilities, and their accompanying disclosures, and the disclosure of contingent liabilities. Uncertainty about these assumptions and estimates could result in outcomes that could require a material adjustment to the carrying amounts of the assets or liabilities affected in the future.

### Estimation uncertainty

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 financial year, are discussed below.

#### ***Provision for expected credit losses on trade receivables and contract assets***

The Group uses a provision matrix to calculate ECLs for trade receivables and contract assets. The provision rates are based on days past due for groupings of various customer segments that have similar loss patterns (i.e., by product type, customer type and rating).

The provision matrix is initially based on the Group's historical observed default rates. The Group will calibrate the matrix to adjust the historical credit loss experience with forward-looking information. For instance, if forecast economic conditions (i.e., gross domestic products) are expected to deteriorate over the next year which can lead to an increased number of defaults in the manufacturing sector, the historical default rates are adjusted. At each reporting date, the historical observed default rates are updated and changes in the forward-looking estimates are analysed.

The assessment of the correlation among historical observed default rates, forecast economic conditions and ECLs is a significant estimate. The amount of ECLs is sensitive to changes in circumstances and forecast economic conditions. The Group's historical credit loss experience and forecast of economic conditions may also not be representative of customer's actual default in the future. The information about the ECLs on the Group's contract assets and trade receivables is disclosed in note 20 and note 21 to the financial statements, respectively.

#### ***Useful lives and residual values of items of property, plant and equipment***

In determining the useful lives and residual values of items of property, plant and equipment, the Group periodically reviews the changes in market conditions, expected physical wear and tear, and the maintenance of the asset. The estimation of the useful life of the asset is based on historical experience of the Group with similar assets that are used in a similar way. The depreciation amount will be adjusted if the estimated useful lives and/or the residual values of items of property, plant and equipment are different from previous estimation. Useful lives and residual values are reviewed, at the end of the reporting period, based on changes in circumstances.

# Notes to Financial Statements (Continued)

31 December 2018

## 3. SIGNIFICANT ACCOUNTING JUDGEMENTS AND ESTIMATES (CONTINUED)

### Estimation uncertainty (Continued)

#### *Deferred tax assets*

Deferred tax assets are recognised for unused tax losses to the extent that it is probable that taxable profit will be available against which the losses can be utilised. Significant management judgement is required to determine the amount of deferred tax assets that can be recognised, based upon the likely timing and level of future taxable profits together with future tax planning strategies. The carrying value of deferred tax assets relating to recognised tax losses at 31 December 2018 was nil (2017: Nil). The amount of unrecognised tax losses at 31 December 2018 was RMB21.5 million (2017: RMB18.3 million). Further details are contained in note 17 to the financial statements.

#### *Percentage of completion of construction contracts*

Revenue from individual contract is recognised to the progress of completion of the project. The determination of the progress of the construction service involves estimation. The Group recognises revenue based on the proportion of the actual costs incurred relative to the estimated total costs for satisfaction of the construction services. Due to the nature of the activity undertaken in construction works, the date at which the activity is entered into and the date at which the activity is completed usually fall into different accounting periods. Hence, the Group reviews and revises the percentage of completion of construction works. Where the actual contract revenue is less than expected or actual contract costs are more than expected, a foreseeable loss may arise.

#### *Impairment of non-financial assets (other than goodwill)*

The Group assesses whether there are any indicators of impairment for all non-financial assets at the end of each reporting period. Indefinite life intangible assets are tested for impairment annually and at other times when such an indicator exists. Other non-financial assets are tested for impairment when there are indicators that the carrying amounts may not be recoverable. An impairment exists when the carrying value of an asset or a cash-generating unit exceeds its recoverable amount, which is the higher of its fair value less costs of disposal and its value in use.

The calculation of the fair value less costs of disposal is based on available data from binding sales transactions in an arm's length transaction of similar assets or observable market prices less incremental costs for disposing of the asset. When value in use calculations are undertaken, management must estimate the expected future cash flows from the asset or cash-generating unit and choose a suitable discount rate in order to calculate the present value of those cash flows.

# Notes to Financial Statements (Continued)

31 December 2018

## 4. OPERATING SEGMENT INFORMATION

For management purposes, the Group's operating businesses are structured and managed separately according to their nature. Each of the Group's operating segments represents a strategic business unit that provides services which are subject to risks and returns that are different from those of the other operating segments. Summary details of the operating segments are as follows:

### (a) Environmental protection and energy conservation solutions

The environmental protection and energy conservation solutions business mainly includes flue gas desulfurization and denitrification facilities concession operation for coal-fired power plants; the manufacture and sale of denitrification catalysts; engineering for coal-fired power plants, including the engineering of denitrification, desulfurization, dust removal, ash and slag handling and other environmental protection facilities and industrial site dust management related engineering; water treatment; and energy conservation including energy conservation facilities engineering and energy management contracting ("EMC").

### (b) Renewable energy engineering

The renewable energy engineering business mainly includes the engineering general contracting for newly-built wind power plants, biomass power plants and photovoltaic power plants.

### (c) Thermal power engineering

The thermal power engineering business mainly includes the engineering procurement construction ("EPC") services for thermal power plants.

### (d) Other businesses

Other businesses currently mainly include various businesses such as fiberglass chimney anti-corrosion, air cooling system engineering general contracting and coal yard monitoring system upgrade.

Management monitors the results of the Group's operating segments separately for the purpose of making decisions about resource allocation and performance assessment. Segment performance is evaluated based on reportable segment results, which is a measure of adjusted profit before tax. The adjusted profit before tax is measured consistently with the Group's profit before tax except that unallocated income and gains, finance costs as well as corporate and other unallocated expenses are excluded from such measurement.

Segment assets and liabilities mainly comprise operating assets and liabilities that are directly attributable to the segment or can be allocated to the segment on a reasonable basis.

Segment assets exclude unallocated intangible assets, unallocated deferred tax assets, unallocated prepayments, other receivables and other assets, restricted cash, cash and cash equivalents and other unallocated head office and corporate assets as these assets are managed on a group basis.

Segment liabilities exclude interest-bearing bank borrowings for daily operation purposes, deferred tax liabilities and other unallocated head office and corporate liabilities as these liabilities are managed on a group basis.



# Notes to Financial Statements (Continued)

31 December 2018

## 4. OPERATING SEGMENT INFORMATION (CONTINUED)

Year ended 31 December 2018	Environmental protection and energy conservation solutions <i>RMB'000</i>	Renewable energy engineering <i>RMB'000</i>	Thermal power engineering <i>RMB'000</i>	Other businesses <i>RMB'000</i>	Total <i>RMB'000</i>
<b>Segment revenue</b>					
Sales to external customers	6,479,870	1,284,967	494,237	328,996	8,588,070
Intersegment sales	14,895	-	-	63,994	78,889
	<b>6,494,765</b>	<b>1,284,967</b>	<b>494,237</b>	<b>392,990</b>	<b>8,666,959</b>
<i>Reconciliation:</i>					
Elimination of intersegment sales					(78,889)
Revenue					<b>8,588,070</b>
<b>Segment results</b>	<b>1,175,956</b>	<b>17,756</b>	<b>27,590</b>	<b>(109,358)</b>	<b>1,111,944</b>
<i>Reconciliation:</i>					
Other income and gains					169,414
Corporate and other unallocated expenses					(143,418)
Finance costs					(200,518)
Profit before tax					<b>937,422</b>

# Notes to Financial Statements (Continued)

31 December 2018

## 4. OPERATING SEGMENT INFORMATION (CONTINUED)

Year ended 31 December 2018	Environmental protection and energy conservation solutions <i>RMB'000</i>	Renewable energy engineering <i>RMB'000</i>	Thermal power engineering <i>RMB'000</i>	Other businesses <i>RMB'000</i>	Total <i>RMB'000</i>
<b>Segment assets</b>	16,655,926	1,905,751	154,122	652,381	19,368,180
<i>Reconciliation:</i>					
Elimination of intersegment receivables					(882,220)
Corporate and other unallocated assets					1,974,021
Total assets					<u>20,459,981</u>
<b>Segment liabilities</b>	8,118,872	1,931,100	206,970	579,394	10,836,336
<i>Reconciliation:</i>					
Elimination of intersegment payables					(882,220)
Corporate and other unallocated liabilities					3,186,543
Total liabilities					<u>13,140,659</u>
<b>Other segment information</b>					
Impairment losses recognised in profit or loss	55,492	8,123	-	1,379	64,994
Impairment losses reversed in profit or loss	(4,847)	-	-	(372)	(5,219)
Depreciation and amortisation	554,585	69	57	18,184	572,895
Capital expenditure*	821,465	-	-	116,342	937,807

\* Capital expenditure consists of additions to property, plant and equipment, prepaid land lease payments and intangible assets.

# Notes to Financial Statements (Continued)

31 December 2018

## 4. OPERATING SEGMENT INFORMATION (CONTINUED)

Year ended 31 December 2017	Environmental protection and energy conservation solutions <i>RMB'000</i>	Renewable energy engineering <i>RMB'000</i>	Thermal power engineering <i>RMB'000</i>	Other businesses <i>RMB'000</i>	Total <i>RMB'000</i>
<b>Segment revenue</b>					
Sales to external customers	5,786,528	1,824,955	–	413,011	8,024,494
Intersegment sales	14,722	–	–	22,598	37,320
	5,801,250	1,824,955	–	435,609	8,061,814
<i>Reconciliation:</i>					
Elimination of intersegment sales					(37,320)
Revenue					8,024,494
<b>Segment results</b>	1,345,505	38,444	–	42,402	1,426,351
<i>Reconciliation:</i>					
Other income and gains					429
Corporate and other unallocated expenses					(165,751)
Finance costs					(182,831)
Profit before tax					1,078,198

# Notes to Financial Statements (Continued)

31 December 2018

## 4. OPERATING SEGMENT INFORMATION (CONTINUED)

Year ended 31 December 2017	Environmental protection and energy conservation solutions <i>RMB'000</i>	Renewable energy engineering <i>RMB'000</i>	Thermal power engineering <i>RMB'000</i>	Other businesses <i>RMB'000</i>	Total <i>RMB'000</i>
<b>Segment assets</b>	16,563,443	1,093,429	64,401	689,273	18,410,546
<i>Reconciliation:</i>					
Elimination of intersegment receivables					(925,823)
Corporate and other unallocated assets					676,729
Total assets					<u>18,161,452</u>
<b>Segment liabilities</b>	7,392,795	1,298,409	72,693	508,193	9,272,090
<i>Reconciliation:</i>					
Elimination of intersegment payables					(925,823)
Corporate and other unallocated liabilities					2,888,824
Total liabilities					<u>11,235,091</u>
<b>Other segment information</b>					
Impairment losses recognised in profit or loss	7,171	-	-	18,970	26,141
Depreciation and amortisation	501,353	60	-	14,555	515,968
Capital expenditure*	1,254,941	-	-	25,036	1,279,977

\* Capital expenditure consists of additions to property, plant and equipment, prepaid land lease payments and intangible assets.

### Geographical information

The majority of the non-current assets are located in the PRC, and the majority of revenues are generated from Mainland China. Therefore, no geographical information is presented.

# Notes to Financial Statements (Continued)

31 December 2018

## 4. OPERATING SEGMENT INFORMATION (CONTINUED)

### Information about major customers

Revenue of approximately RMB6,709 million (2017: RMB6,064 million) was derived from sales of goods and the rendering of services to China Datang Corporation and its subsidiaries (excluding the Group) (“**China Datang Corporation**”).

## 5. REVENUE, OTHER INCOME AND GAINS

An analysis of revenue is as follows:

	2018 <i>RMB'000</i>	2017 <i>RMB'000</i>
<b>Revenue from contracts with customers</b>	<b>8,585,395</b>	–
Sales of goods	<b>354,755</b>	335,512
Construction services	<b>5,022,992</b>	4,443,021
Desulfurization and denitrification services	<b>3,207,648</b>	3,188,809
Other services	–	55,788
<b>Revenue from other sources</b>		
Gross rental income	<b>2,675</b>	1,364
	<b>8,588,070</b>	8,024,494

# Notes to Financial Statements (Continued)

31 December 2018

## 5. REVENUE, OTHER INCOME AND GAINS (CONTINUED)

### Revenue from contracts with customers

#### (i) Disaggregated revenue information

For the year ended 31 December 2018

Segments	Environmental protection and energy conservation solutions <i>RMB'000</i>	Renewable energy engineering <i>RMB'000</i>	Thermal power engineering <i>RMB'000</i>	Other businesses <i>RMB'000</i>	Total <i>RMB'000</i>
<b>Type of goods or service</b>					
Sales of goods	333,899	-	-	20,856	354,755
Construction services	2,938,323	1,284,967	494,237	305,465	5,022,992
Desulfurization and denitrification services	3,207,648	-	-	-	3,207,648
<b>Total revenue from contracts with customers</b>	<b>6,479,870</b>	<b>1,284,967</b>	<b>494,237</b>	<b>326,321</b>	<b>8,585,395</b>
<b>Timing of revenue recognition</b>					
Goods transferred at a point in time	333,899	-	-	20,856	354,755
Services transferred over time	6,145,971	1,284,967	494,237	305,465	8,230,640
<b>Total revenue from contracts with customers</b>	<b>6,479,870</b>	<b>1,284,967</b>	<b>494,237</b>	<b>326,321</b>	<b>8,585,395</b>

# Notes to Financial Statements (Continued)

31 December 2018

## 5. REVENUE, OTHER INCOME AND GAINS (CONTINUED)

### Revenue from contracts with customers (Continued)

#### (i) Disaggregated revenue information (Continued)

Set out below is the reconciliation of the revenue from contracts with customers with the amounts disclosed in the segment information:

**For the year ended 31 December 2018**

Segments	Environmental protection and energy conservation solutions <i>RMB'000</i>	Renewable energy engineering <i>RMB'000</i>	Thermal power engineering <i>RMB'000</i>	Other businesses <i>RMB'000</i>	Total <i>RMB'000</i>
<b>Revenue from contracts with customers</b>					
External customers	6,479,870	1,284,967	494,237	326,321	8,585,395
Intersegment sales	14,895	-	-	63,994	78,889
	<b>6,494,765</b>	<b>1,284,967</b>	<b>494,237</b>	<b>390,315</b>	<b>8,664,284</b>
Intersegment adjustments and eliminations	(14,895)	-	-	(63,994)	(78,889)
	<b>6,479,870</b>	<b>1,284,967</b>	<b>494,237</b>	<b>326,321</b>	<b>8,585,395</b>
<b>Total revenue from contracts with customers</b>	<b>6,479,870</b>	<b>1,284,967</b>	<b>494,237</b>	<b>326,321</b>	<b>8,585,395</b>

# Notes to Financial Statements (Continued)

31 December 2018

## 5. REVENUE, OTHER INCOME AND GAINS (CONTINUED)

### Revenue from contracts with customers (Continued)

#### (i) Disaggregated revenue information (Continued)

The following table shows the amounts of revenue recognised in the current reporting period that were included in the contract liabilities at the beginning of the reporting period and recognised from performance obligations satisfied in previous periods:

	<b>2018</b> <b>RMB'000</b>
Revenue recognised that was included in contract liabilities at the beginning of the reporting period:	
Sale of goods	<b>3,267</b>
Construction services	<b>367,081</b>
	<b>370,348</b>
Revenue recognised from performance obligations satisfied in previous periods:	
Sale of goods not previously recognised due to constraints on variable consideration	-



# Notes to Financial Statements (Continued)

31 December 2018

## 5. REVENUE, OTHER INCOME AND GAINS (CONTINUED)

### Revenue from contracts with customers (Continued)

#### (ii) Performance obligations

Information about the Group's performance obligations is summarised below:

##### *Sale of goods*

The performance obligation is satisfied upon delivery of the goods and payment is generally due within 30 to 90 days from delivery, where payment in advance is normally required.

##### *Construction services*

The performance obligation is satisfied over time as services are rendered and payment is generally due within 30 days from the date of billing. A certain percentage of payment is retained by customers until the end of the retention period as the Group's entitlement to the final payment is conditional on the satisfaction of the service quality by the customers over a certain period as stipulated in the contracts.

The transaction prices allocated to the remaining performance obligations (unsatisfied or partially unsatisfied) as at 31 December 2018 are as follows:

	<i>RMB'000</i>
Within one year	3,547,379
More than one year	913,967
	<u>4,461,346</u>

The remaining performance obligations expected to be recognised in more than one year related to construction services that are to be satisfied within two years. All the other remaining performance obligations are expected to be recognised within one year.

# Notes to Financial Statements (Continued)

31 December 2018

## 5. REVENUE, OTHER INCOME AND GAINS (CONTINUED)

### Revenue from contracts with customers (Continued)

#### (ii) Performance obligations (Continued)

	2018 <i>RMB'000</i>	2017 <i>RMB'000</i>
<b>Other income</b>		
Bank interest income	9,739	7,166
Government grants	144,244	80,806
	<b>153,983</b>	87,972
<b>Gains</b>		
Loss on disposal of items of property, plant and equipment	–	(31)
Exchange gains/(losses) ( <i>Note a</i> )	15,431	(87,512)
	<b>15,431</b>	(87,543)
	<b>169,414</b>	429

*Note a:* Included an exchange gain of RMB9 million arising from the conversion of the Hong Kong dollars into RMB during the year ended 31 December 2018.

# Notes to Financial Statements (Continued)

31 December 2018

## 6. FINANCE COSTS

An analysis of finance costs is as follows:

	<b>2018</b> <i>RMB'000</i>	2017 <i>RMB'000</i>
Interest expenses on bank borrowings and other loans	<b>214,785</b>	194,284
Less: interest capitalised	<b>(14,267)</b>	(11,453)
	<b>200,518</b>	182,831

The Group's capitalisation rate for the year ended 31 December 2018 was 4.41% to 7.50% (for the year ended 31 December 2017: 3.92% to 5.15%).

# Notes to Financial Statements (Continued)

31 December 2018

## 7. PROFIT BEFORE TAX

The Group's profit before tax is arrived at after charging/(crediting):

	<i>Notes</i>	<b>2018</b> <b>RMB'000</b>	2017 <i>RMB'000</i>
Cost of goods sold		<b>266,658</b>	216,041
Cost of services provided		<b>6,971,455</b>	6,208,723
Cost of sales		<b>7,238,113</b>	6,424,764
Depreciation of property, plant and equipment	13	<b>485,703</b>	504,403
Amortization of intangible assets	14	<b>12,455</b>	11,100
Amortization of leasehold land	15	<b>465</b>	465
Research and development expenses		<b>6,438</b>	14,605
Provision for warranties		<b>(2,149)</b>	(2,339)
Minimum lease payments under operating leases		<b>33,522</b>	33,448
Auditor's remuneration		<b>4,240</b>	4,610
Employee benefit expense (excluding Directors' and Supervisors' remuneration ( <i>note 8</i> )): <ul style="list-style-type: none"> <li>Wages, salaries and allowances, social securities and benefits</li> </ul>		<b>326,377</b>	311,471
Pension scheme contributions (defined contribution scheme) ( <i>Note a</i> )		<b>49,464</b>	47,245
		<b>375,841</b>	358,716
Impairment of financial and contract assets, net: <ul style="list-style-type: none"> <li>Impairment of contract assets</li> </ul>	20	<b>1,998</b>	–
Impairment of trade receivables	21	<b>57,910</b>	14,963
Impairment of financial assets included in prepayments, other receivables and other assets		<b>(133)</b>	11,178
		<b>59,775</b>	26,141
Bank interest income	5	<b>(9,739)</b>	(7,166)
Government grants	5	<b>(144,244)</b>	(80,806)
Loss on disposal of items of property, plant and equipment, net	5	–	31
Exchange (gains)/losses	5	<b>(15,431)</b>	87,512

# Notes to Financial Statements (Continued)

31 December 2018

## 7. PROFIT BEFORE TAX (CONTINUED)

*Note a:*

Pension scheme contribution

The Group is required to make specific contributions to the state-sponsored retirement plan at rates ranging from 14% to 20% (2017: 14% to 20%) of the specified salaries of the employees in the PRC. The PRC government is responsible for the pension liability to the retired employees. The PRC employees of the Group are entitled to a monthly pension upon their retirements.

In addition, the Group has implemented a supplementary defined contribution retirement scheme in accordance with China Datang Corporation's policy. Under this scheme, the Group is required to make specified contributions at a rate of 5% (2017: 5%) of the total salaries of qualified employees. These employees will receive the total contributions and any returns thereon upon their retirements.

## 8. DIRECTORS' AND SUPERVISORS' REMUNERATION

The aggregate amounts of remuneration of the Directors and Supervisors of the Company during the year are as follows:

	<b>2018</b> <b>RMB'000</b>	<b>2017</b> <b>RMB'000</b>
Fees	<b>300</b>	300
Other emoluments:		
– Salaries, housing benefits, other allowances and benefits in kind	<b>2,439</b>	1,954
– Pension scheme contributions (defined contribution scheme)	<b>170</b>	122
Total	<b>2,909</b>	2,376

# Notes to Financial Statements (Continued)

31 December 2018

## 8. DIRECTORS' AND SUPERVISORS' REMUNERATION (CONTINUED)

The remuneration of each director and supervisor of the Company for the year ended 31 December 2018 is set out below:

	Notes	Fees RMB'000	Salaries, housing benefits, other allowances and benefits in kind RMB'000	Pension scheme contributions (defined contribution scheme) RMB'000	Total remuneration RMB'000
<b>Executive directors:</b>					
Mr. Deng Xiandong	(iv)	–	804	55	859
Mr. Lu Shengli	(i)	–	794	55	849
Mr. Shen Zhen	(i)	–	32	5	37
		–	1,630	115	1,745
<b>Non-executive directors:</b>					
Mr. Jin Yaohua		–	–	–	–
Mr. Liu Chuandong		–	–	–	–
Mr. Liang Yongpan	(ii)	–	–	–	–
Mr. Liu Guangming		–	–	–	–
Mr. Li Yi	(ii)	–	–	–	–
		–	–	–	–
<b>Independent non-executive directors:</b>					
Mr. Ye Xiang		100	–	–	100
Mr. Mao Zhuanjian		100	–	–	100
Mr. Gao Jiayang		100	–	–	100
		300	–	–	300
<b>Supervisors:</b>					
Mr. Wang Yuanchun		–	–	–	–
Mr. Liu Liming	(ii)	–	–	–	–
Mr. Miao Shihai	(ii)	–	–	–	–
Mr. Liu Jianxiang	(iii)	–	147	–	147
Mr. Chen Li	(iii)	–	662	55	717
		–	809	55	864
		300	2,439	170	2,909

# Notes to Financial Statements (Continued)

31 December 2018

## 8. DIRECTORS' AND SUPERVISORS' REMUNERATION (CONTINUED)

The remuneration of each director and supervisor of the Company for the year ended 31 December 2017 is set out below:

	Fees <i>RMB'000</i>	Salaries, housing benefits, other allowances and benefits in kind <i>RMB'000</i>	Pension scheme contributions (defined contribution scheme) <i>RMB'000</i>	Total remuneration <i>RMB'000</i>
<b>Executive directors:</b>				
Mr. Deng Xiandong	–	876	51	927
Mr. Lu Shengli	–	876	51	927
	–	1,752	102	1,854
<b>Non-executive directors:</b>				
Mr. Jin Yaohua	–	–	–	–
Mr. Liu Chuandong	–	–	–	–
Mr. Liang Yongpan	–	–	–	–
Mr. Liu Guangming	–	–	–	–
	–	–	–	–
<b>Independent non-executive directors:</b>				
Mr. Ye Xiang	100	–	–	100
Mr. Mao Zhuanjian	100	–	–	100
Mr. Gao Jiaxiang	100	–	–	100
	300	–	–	300
<b>Supervisors:</b>				
Mr. Wang Yuanchun	–	–	–	–
Mr. Liu Liming	–	–	–	–
Mr. Liu Jianxiang	–	202	20	222
	–	202	20	222
	300	1,954	122	2,376

# Notes to Financial Statements (Continued)

31 December 2018

## 8. DIRECTORS' AND SUPERVISORS' REMUNERATION (CONTINUED)

Notes:

- (i) Mr. Lu Shengli was resigned as an executive director with effect from 15 November 2018 while Mr. Shen Zhen was appointed as an executive director with effect from 30 November 2018.
- (ii) Mr. Li Yi was appointed as a non-executive director with effect from 29 June 2018 while Mr. Liang Yongpan retired as a non-executive director on the same date. Mr. Miao Shihai was appointed as supervisor with effect from 29 June 2018 while Mr. Liu Liming retired as a supervisor on the same date.
- (iii) Mr. Chen Li was appointed as a supervisor with effect from 31 January 2018 while Mr. Liu Jianxiang resigned as supervisor on the same date.
- (iv) Mr. Deng Xiandong, an executive director of the Company, has been re-designated as a non-executive director of the Company, with effect from 22 March 2019.

In 2017, the remuneration of Mr. Jin Yaohua, Mr. Liu Chuandong, Mr. Liu Guangming, Mr. Liang Yongpan, Mr. Wang Yuanchun and Mr. Liu Liming was paid by China Datang Corporation, and no remuneration was paid by the Company.

In 2018, the remuneration of Mr. Jin Yaohua, Mr. Liu Chuandong, Mr. Liu Guangming, Mr. Liang Yongpan, Mr. Li Yi, Mr. Wang Yuanchun, Mr. Liu Liming and Mr. Miao Shihai was paid by China Datang Corporation, and no remuneration was paid by the Company.

There was no arrangement under which the Directors waived or agreed to waive any remuneration during the year.

## 9. FIVE HIGHEST PAID EMPLOYEES

The five highest paid employees included two directors and three senior executives during the year ended of 31 December 2018 (2017: two directors and three senior executives). Details of directors' and supervisors' remuneration are set out in note 8 to the financial statements. Details of the remuneration of the highest paid senior executives who are not a director or a supervisor of the Company are as follows:

	<b>2018</b> <i>RMB'000</i>	<b>2017</b> <i>RMB'000</i>
Salaries, housing benefits, other allowances and benefits in kind	<b>2,069</b>	1,747
Pension scheme contributions (defined contribution scheme)	<b>166</b>	99
Total	<b>2,235</b>	1,846

The number of non-director and non-supervisor highest paid employees whose remuneration fell within the following band is as follows:

	<b>Number of employees</b>	
	<b>2018</b>	<b>2017</b>
Nil to HK\$1,000,000	<b>3</b>	3
Total	<b>3</b>	3



# Notes to Financial Statements (Continued)

31 December 2018

## 10. INCOME TAX EXPENSE

Pursuant to the PRC Enterprise Income Tax Law (中華人民共和國企業所得稅法) and the PRC Enterprise Income Tax Law Implementation Regulations (中華人民共和國企業所得稅法實施條例), the Company and its certain subsidiaries have been recognised as high-technology enterprises and are subject to a preferential corporate income tax rate of 15%.

Certain branches of the Company are engaged in qualified environmental protection and resources or water conservation projects and income derived from such activities is tax exempted for the first 3 years followed by a 50% exemption from the fourth to the sixth years starting from the first year in which the project generates operating profit.

Under the above tax law and regulations, except for preferential treatments available to certain branches and subsidiaries of the Company as mentioned above, other subsidiaries within the Group are subject to corporate income tax at the statutory rate of 25%.

The subsidiary of the Company in India is subject to corporate income tax at a rate of 27.55% during the period from 1 January 2018 to 31 March 2018, and 27.82% for the remaining period in 2018 (33.06% during the period from 1 January 2017 to 31 March 2017, and 27.55% during the remaining period in 2017).

The components of income tax expense for the year are as follows:

	<b>2018</b> <i>RMB'000</i>	<b>2017</b> <i>RMB'000</i>
Current – PRC	<b>161,597</b>	182,154
Current – other country	<b>1,572</b>	(7,458)
Deferred ( <i>note 17</i> )	<b>(8,970)</b>	(11,410)
	<b>154,199</b>	163,286

# Notes to Financial Statements (Continued)

31 December 2018

## 10. INCOME TAX EXPENSE (CONTINUED)

A reconciliation of the income tax expense applicable to profit before tax using the statutory income tax rate applicable in the PRC to the income tax expense at the Group's effective income tax rate for the year is as follows:

	<b>2018</b> <i>RMB'000</i>	<b>2017</b> <i>RMB'000</i>
Profit before tax	<b>937,422</b>	1,078,198
Income tax at the statutory income tax rate of 25% (2017: 25%)	<b>234,356</b>	269,550
Effect of a different tax rate applicable in another country	<b>(285)</b>	(1,554)
Effect of the preferential income tax rate	<b>(91,880)</b>	(116,129)
Expenses not deductible for tax	<b>2,432</b>	4,680
Additional deduction of research and development expenses	<b>(837)</b>	(811)
Adjustments in respect of current tax of previous periods	<b>7,827</b>	760
Tax credit from purchase of domestic equipment	<b>–</b>	(442)
Effect of utilisation of unrecognised tax losses in prior years	<b>(228)</b>	–
Deductible temporary differences and tax losses not recognised	<b>2,814</b>	7,232
Income tax charge for the year	<b>154,199</b>	163,286
The Group's effective rate	<b>16.4%</b>	15.1%

# Notes to Financial Statements (Continued)

31 December 2018

## 11. DIVIDENDS

The dividends during the years ended 31 December 2018 and 2017 are set out below:

	<b>2018</b> <i>RMB'000</i>	2017 <i>RMB'000</i>
Dividends declared to owners of the parent	<b>385,780</b>	370,943

- (i) During 2018, the final dividend of RMB385,780,000 at RMB0.13 per ordinary share (before tax) in respect of the year of 2017, based on the issued shares of the Company of 2,967,542,000 shares, was declared to owners of the parent.

As of the date of approval of the financial statements, the Board is currently considering and discussing whether to declare the final dividend for the year ended 31 December 2018 and (if declared) the amount of such dividend.

- (ii) Pursuant to the applicable provisions of the Enterprise Income Tax Law of the People's Republic of China (《中華人民共和國企業所得稅法》) and its implementation rules, the Company will withhold and pay enterprise income tax at the rate of 10% when it distributes final dividends to non-resident enterprise holders of H shares (including any H shares registered in the name of HKSCC Nominees Limited).

Pursuant to the applicable provisions of the Individual Income Tax Law of the People's Republic of China (《中華人民共和國個人所得稅法》) and its implementation rules as well as the Tax Notice, the Company will withhold and pay individual income tax ranging from 10% to 20% on behalf of individual holders of H shares.

## Notes to Financial Statements (Continued)

31 December 2018

### 12. EARNINGS PER SHARE ATTRIBUTABLE TO ORDINARY EQUITY HOLDERS OF THE PARENT

The calculation of the basic earnings per share amount is based on the profit attributable to ordinary equity holders of the parent, and the weighted average number of ordinary shares in issue during the year, as adjusted to reflect the rights issue during the year.

The Company did not have any potential dilutive shares in issue during the years ended 31 December 2018 and 2017. Accordingly, the diluted earnings per share amounts are the same as the basic earnings per share amounts.

The calculations of basic and diluted earnings per share are based on:

<b>Earnings</b>	<b>2018</b>	<b>2017</b>
Profit attributable to ordinary equity holders of the parent, used in the basic/diluted earnings per share calculations ( <i>RMB</i> )	<b>766,736,934</b>	874,923,605
	<b>Number of shares</b>	
<b>Shares</b>	<b>2018</b>	<b>2017</b>
Weighted average number of ordinary shares in issue during the year, used in the basic/diluted earnings per share calculations ( <i>share</i> )	<b>2,967,542,000</b>	2,967,542,000
	<b>2018</b>	<b>2017</b>
Basic/diluted earnings per share ( <i>RMB</i> )	<b>0.26</b>	0.29

# Notes to Financial Statements (Continued)

31 December 2018

## 13. PROPERTY, PLANT AND EQUIPMENT

	Buildings and other infrastructure <i>RMB'000</i>	Machinery <i>RMB'000</i>	Transportation vehicles <i>RMB'000</i>	Office equipment and others <i>RMB'000</i>	Construction in progress ("CIP") <i>RMB'000</i>	Total <i>RMB'000</i>
<b>Cost:</b>						
At 1 January 2018	894,877	6,901,264	34,728	117,887	1,147,932	9,096,688
Addition	-	2,108	-	4,451	866,126	872,685
Transfer from CIP	99,415	474,577	-	1,750	(575,742)	-
Other adjustment	(6,424)	-	(642)	(1,758)	(47,071)	(55,895)
At 31 December 2018	987,868	7,377,949	34,086	122,330	1,391,245	9,913,478
<b>Accumulated depreciation:</b>						
At 1 January 2018	(178,950)	(1,501,612)	(27,633)	(46,827)	-	(1,755,022)
Provision	(32,933)	(438,648)	(2,345)	(11,777)	-	(485,703)
Other adjustment	-	-	642	1,758	-	2,400
At 31 December 2018	(211,883)	(1,940,260)	(29,336)	(56,846)	-	(2,238,325)
<b>Impairment:</b>						
At 1 January 2018	-	-	-	-	-	-
Provision	-	-	-	-	-	-
At 31 December 2018	-	-	-	-	-	-
<b>Net carrying amount:</b>						
At 1 January 2018	715,927	5,399,652	7,095	71,060	1,147,932	7,341,666
At 31 December 2018	775,985	5,437,689	4,750	65,484	1,391,245	7,675,153

# Notes to Financial Statements (Continued)

31 December 2018

## 13. PROPERTY, PLANT AND EQUIPMENT (CONTINUED)

	Buildings and other infrastructure <i>RMB'000</i>	Machinery <i>RMB'000</i>	Transportation vehicles <i>RMB'000</i>	Office equipment and others <i>RMB'000</i>	Construction in progress ("CIP") <i>RMB'000</i>	Total <i>RMB'000</i>
<b>Cost:</b>						
At 1 January 2017	901,102	5,753,615	35,050	110,480	1,094,342	7,894,589
Addition	-	224,565	679	7,419	984,481	1,217,144
Transfer from CIP	7,807	923,084	-	-	(930,891)	-
Disposals	-	-	(1,001)	(12)	-	(1,013)
Other adjustment	(14,032)	-	-	-	-	(14,032)
At 31 December 2017	894,877	6,901,264	34,728	117,887	1,147,932	9,096,688
<b>Accumulated depreciation:</b>						
At 1 January 2017	(146,716)	(1,044,212)	(24,912)	(35,520)	-	(1,251,360)
Provision	(32,234)	(457,400)	(3,450)	(11,319)	-	(504,403)
Disposals	-	-	729	12	-	741
At 31 December 2017	(178,950)	(1,501,612)	(27,633)	(46,827)	-	(1,755,022)
<b>Impairment:</b>						
At 1 January 2017	-	-	-	-	-	-
Provision	-	-	-	-	-	-
At 31 December 2017	-	-	-	-	-	-
<b>Net carrying amount:</b>						
At 1 January 2017	754,386	4,709,403	10,138	74,960	1,094,342	6,643,229
At 31 December 2017	715,927	5,399,652	7,095	71,060	1,147,932	7,341,666

# Notes to Financial Statements (Continued)

31 December 2018

## 13. PROPERTY, PLANT AND EQUIPMENT (CONTINUED)

As at 31 December 2018 and 2017, there were no property, plant and equipment of the Group pledged to secure bank borrowings and other loans.

As at 31 December 2018, the Group has been in the process of applying for the ownership certificates of buildings with a net carrying amount of RMB22,720,000 (31 December 2017: RMB30,110,000).

In accordance with the IAS 16 Property, Plant and Equipment and IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors, the Group adjusted the expected useful life and the expected residual value rate of power generation and heat supply equipment and assets (“發電及供熱設備”) to ensure the adjusted expected useful life and expected residual value rate to meet the estimates on the period that the future economic benefits by considering actual useful life of the fixed assets accordingly. The expected useful life increased 2 years from 15 years to 17 years and residual value rate decreased 2 percentage points from 5% to 3%. The new expected useful life and the expected residual value rate of power generation and heat supply equipment and assets (“發電及供熱設備”) came into effect from 1 January 2018. The management adopts prospective application for the changes in accounting estimates.

Based on preliminary calculations, if there are no changes in accounting estimates, the depreciation charge would amount to approximately RMB439,340,000 in 2018. After the changes in accounting estimates, the depreciation charge amounted to approximately RMB384,624,000 in 2018, which increased the total profit of the Group for the year ended 31 December 2018 by approximately RMB54,716,000.

Based on preliminary calculations, if there are no changes in accounting estimates, it is expected that the depreciation charge would amount to approximately RMB425,781,000 in 2019. After the changes in accounting estimates, it is expected that the depreciation charge would amount to approximately RMB370,934,000 in 2019, which is expected to increase the total profit of the Group for the year ending 31 December 2019 by approximately RMB54,847,000.

Above changes in accounting estimates were approved by the board of directors of the Company during the sixth meeting of the second session in 2018.

# Notes to Financial Statements (Continued)

31 December 2018

## 14. INTANGIBLE ASSETS

	Patents <i>RMB'000</i>	Non-patented technology <i>RMB'000</i>	Development expenditure <i>RMB'000</i>	Software <i>RMB'000</i>	Total <i>RMB'000</i>
<b>Cost:</b>					
At 1 January 2018	88,066	41,197	71,205	18,211	218,679
Addition	–	5	61,743	3,374	65,122
Reclassification	(43,589)	53,575	(10,548)	562	–
Recognised in research and development expenses	–	–	(6,286)	–	(6,286)
Other adjustment	–	–	–	(40)	(40)
At 31 December 2018	44,477	94,777	116,114	22,107	277,475
<b>Accumulated amortization:</b>					
At 1 January 2018	(27,115)	(20,263)	–	(7,692)	(55,070)
Provision	(3,323)	(7,516)	–	(1,616)	(12,455)
Reclassification	10,161	(10,161)	–	–	–
Other adjustment	–	–	–	40	40
At 31 December 2018	(20,277)	(37,940)	–	(9,268)	(67,485)
<b>Impairment:</b>					
At 1 January 2018	(1,375)	–	–	–	(1,375)
Provision	–	–	–	–	–
At 31 December 2018	(1,375)	–	–	–	(1,375)
<b>Net carrying amount:</b>					
At 1 January 2018	59,576	20,934	71,205	10,519	162,234
At 31 December 2018	22,825	56,837	116,114	12,839	208,615



# Notes to Financial Statements (Continued)

31 December 2018

## 14. INTANGIBLE ASSETS (CONTINUED)

	Patents <i>RMB'000</i>	Non-patented technology <i>RMB'000</i>	Development expenditure <i>RMB'000</i>	Software <i>RMB'000</i>	Total <i>RMB'000</i>
<b>Cost:</b>					
At 1 January 2017	80,450	31,997	30,821	12,578	155,846
Addition	760	8,100	58,223	5,633	72,716
Reclassification	6,856	1,100	(7,956)	–	–
Recognised in research and development expenses	–	–	(9,883)	–	(9,883)
At 31 December 2017	88,066	41,197	71,205	18,211	218,679
<b>Accumulated amortization:</b>					
At 1 January 2017	(19,933)	(17,630)	–	(6,407)	(43,970)
Provision	(7,182)	(2,633)	–	(1,285)	(11,100)
At 31 December 2017	(27,115)	(20,263)	–	(7,692)	(55,070)
<b>Impairment:</b>					
At 1 January 2017	(1,375)	–	–	–	(1,375)
Provision	–	–	–	–	–
At 31 December 2017	(1,375)	–	–	–	(1,375)
<b>Net carrying amount:</b>					
At 1 January 2017	59,142	14,367	30,821	6,171	110,501
At 31 December 2017	59,576	20,934	71,205	10,519	162,234

As at 31 December 2018 and 2017, there were no intangible assets of the Group pledged to secure bank borrowings and other loans.

# Notes to Financial Statements (Continued)

31 December 2018

## 15. PREPAID LAND LEASE PAYMENTS

	<i>RMB'000</i>
<b>Cost:</b>	
At 1 January 2018	21,858
Addition	-
	<hr/>
At 31 December 2018	21,858
	<hr/>
<b>Accumulated amortization:</b>	
At 1 January 2018	(2,327)
Provision	(465)
	<hr/>
At 31 December 2018	(2,792)
	<hr/>
<b>Impairment:</b>	
At 1 January 2018	-
Provision	-
	<hr/>
At 31 December 2018	-
	<hr/>
<b>Net carrying amount:</b>	
At 1 January 2018	19,531
	<hr/> <hr/>
At 31 December 2018	19,066
	<hr/> <hr/>

# Notes to Financial Statements (Continued)

31 December 2018

## 15. PREPAID LAND LEASE PAYMENTS (CONTINUED)

	<i>RMB'000</i>
<b>Cost:</b>	
At 1 January 2017	21,858
Addition	–
At 31 December 2017	21,858
<b>Accumulated amortization:</b>	
At 1 January 2017	(1,862)
Provision	(465)
At 31 December 2017	(2,327)
<b>Impairment:</b>	
At 1 January 2017	–
Provision	–
At 31 December 2017	–
<b>Net carrying amount:</b>	
At 1 January 2017	19,996
At 31 December 2017	19,531

## 16. EQUITY INVESTMENTS DESIGNATED AT FAIR VALUE THROUGH OTHER COMPREHENSIVE INCOME/AVAILABLE-FOR-SALE INVESTMENTS

	<i>2018 RMB'000</i>	<i>2017 RMB'000</i>
<b>Equity investments designated at fair value through other comprehensive income</b>		
Unlisted equity investments, at fair value Datang Overseas Technology Co., Ltd. (中國大唐集團海外技術服務有限公司)	<b>7,171</b>	–
<b>Available-for-sale investments</b>		
Unlisted equity investments, at cost Datang Overseas Technology Co., Ltd. (中國大唐集團海外技術服務有限公司)	–	5,000

# Notes to Financial Statements (Continued)

31 December 2018

## 16. EQUITY INVESTMENTS DESIGNATED AT FAIR VALUE THROUGH OTHER COMPREHENSIVE INCOME/AVAILABLE-FOR-SALE INVESTMENTS (CONTINUED)

The above equity investments were irrevocably designated at fair value through other comprehensive income as the Group considers these investments to be strategic in nature.

As at 31 December 2017, an unlisted equity investment with a carrying amount of RMB5,000,000 was stated at cost less impairment because the range of reasonable fair value estimates was so significant that the directors were of the opinion that its fair value cannot be measured reliably. The Group does not intend to dispose of it in the near future.

## 17. DEFERRED TAX

The movements in deferred tax assets and liabilities during the year are as follows:

### Deferred tax assets

	Impairment of financial and contract assets <i>RMB'000</i>	Accrued expenses <i>RMB'000</i>	Deferred income <i>RMB'000</i>	Elimination of unrealized profit <i>RMB'000</i>	Fair value adjustments of equity investments at fair value through other comprehensive income <i>RMB'000</i>	Others <i>RMB'000</i>	Total <i>RMB'000</i>
At 31 December 2017	17,770	1,810	2,712	12,959	-	988	36,239
Effect of adoption of IFRS9	512	-	-	-	84	-	596
At 1 January 2018	18,282	1,810	2,712	12,959	84	988	36,835
Deferred tax credited/(charged) to profit or loss during the year (note 10)	8,291	(892)	2,219	150	-	(798)	8,970
Deferred tax credited to other comprehensive income during the year	-	-	-	-	(84)	-	(84)
At 31 December 2018	26,573	918	4,931	13,109	-	190	45,721
At 1 January 2017	14,059	2,325	2,382	5,660	-	403	24,829
Deferred tax credited/(charged) to profit or loss during the year (note 10)	3,711	(515)	330	7,299	-	585	11,410
At 31 December 2017	17,770	1,810	2,712	12,959	-	988	36,239

# Notes to Financial Statements (Continued)

31 December 2018

## 17. DEFERRED TAX (CONTINUED)

### Deferred tax liabilities

	Fair value adjustments of equity investments at fair value through other comprehensive income <i>RMB'000</i>	Total <i>RMB'000</i>
At 1 January 2018	–	–
Deferred tax charged to other comprehensive income during the year	326	326
At 31 December 2018	326	326

For presentation purposes, certain deferred tax assets and liabilities have been offset in the statement of financial position. The following is an analysis of the deferred tax balances of the Group for financial reporting purposes:

	<i>RMB'000</i>
Net deferred tax assets recognised in the consolidated statement of financial position	45,395
Net deferred tax liabilities recognized in the consolidated statement of financial position	–
Net deferred tax assets	45,395

As at 31 December 2018, the Group has tax losses arising in India of RMB21,543,000 (31 December 2017: RMB18,291,000) that will expire up to eight years for offsetting against future taxable profits of Technologies & Engineering India, an overseas subsidiary of the Group. As at 31 December 2018, the Group has no tax losses arising in the PRC (31 December 2017: RMB1,029,000).

# Notes to Financial Statements (Continued)

31 December 2018

## 18. INVENTORIES

	<b>2018</b> <i>RMB'000</i>	2017 <i>RMB'000</i>
Raw materials	<b>76,163</b>	62,496
Work-in-progress	<b>7,995</b>	13,059
Finished goods	<b>69,362</b>	48,372
	<b>153,520</b>	123,927

## 19. CONSTRUCTION CONTRACTS

	<b>2018</b> <i>RMB'000</i>	2017 <i>RMB'000</i>
Gross amount due from contract customers included in construction contracts	–	363,490
Gross amount due to contract customers included in other payables and accruals	–	(532,989)
	–	(169,499)
Contract costs incurred plus recognised profits less recognised losses to date	–	32,921,297
Less: progress billings	–	(33,090,796)
	–	(169,499)

# Notes to Financial Statements (Continued)

31 December 2018

## 20. CONTRACT ASSETS

	<b>31 December 2018 RMB'000</b>	1 January 2018 RMB'000	31 December 2017 RMB'000
Contract assets arising from construction services	<b>986,807</b>	363,490	–
Less: Impairment	<b>(4,371)</b>	(2,373)	–
Total	<b>982,436</b>	361,117	–

Contract assets are initially recognised for revenue earned from construction services as the receipt of consideration is conditional on successful completion of construction. Upon completion of construction and acceptance by the customer, the amounts recognised as contract assets are reclassified to trade receivables. The increase in contract assets in 2018 was the result of the increase in the provision of construction services at the end of the year.

During the year ended 31 December 2018, RMB1,998,000 was recognised as an allowance for expected credit losses on contract assets. The Group's trading terms and credit policy with customers are disclosed in note 21 to the financial statements.

The expected timing of recovery or settlement for contract assets as at 31 December 2018 is as follows:

	<b>RMB'000</b>
Within one year	<b>982,436</b>
More than one year	–
Total contract assets	<b>982,436</b>

# Notes to Financial Statements (Continued)

31 December 2018

## 20. CONTRACT ASSETS (CONTINUED)

The movements in the loss allowance for impairment of contract assets are as follows:

	<b>2018</b> <b>RMB'000</b>
At beginning of year	–
Effect of adoption of IFRS 9	<b>2,373</b>
At beginning of year (restated)	<b>2,373</b>
Impairment losses, net	<b>1,998</b>
At end of year	<b>4,371</b>

An impairment analysis is performed at each reporting date using a provision matrix to measure expected credit losses. The provision rates for the measurement of the expected credit losses of the contract assets are based on those of the trade receivables as the contract assets and the trade receivables are from the same customer bases. The provision rates of contract assets are based on days past due of trade receivables for groupings of various customer segments with similar loss patterns (i.e., by product type, customer type and rating). The calculation reflects the probability-weighted outcome, and reasonable and supportable information that is available at the reporting date about past events, current conditions and forecasts of future economic conditions.

Set out below is the information about the credit risk exposure on the Group's contract assets using a provision matrix:

### As at 31 December 2018

Expected credit loss rate	<b>0.44%</b>
	<b>RMB'000</b>
Gross carrying amount	<b>986,807</b>
Expected credit losses	<b>4,371</b>



# Notes to Financial Statements (Continued)

31 December 2018

## 21. TRADE AND BILLS RECEIVABLES

	<b>2018</b> <i>RMB'000</i>	2017 <i>RMB'000</i>
Trade receivables	<b>8,070,157</b>	6,777,178
Less: provision for impairment	<b>(164,885)</b>	(106,275)
	<b>7,905,272</b>	6,670,903
Bills receivable	<b>493,233</b>	520,892
Total	<b>8,398,505</b>	7,191,795

The Group's trading terms with its customers are mainly on credit, except for new customers, where payment in advance is normally required. The credit period is generally within one year. Each customer has a maximum credit limit. The Group seeks to maintain strict control over the outstanding receivables to minimise credit risk. Overdue balances are reviewed regularly by senior management. Trade receivables are non-interest-bearing.

### (a) Ageing analysis

An ageing analysis of the trade and bills receivables, based on the invoice date and net of loss allowance, at the end of the reporting period is as follows:

	<b>2018</b> <i>RMB'000</i>	2017 <i>RMB'000</i>
Within 1 year	<b>5,148,887</b>	3,988,580
Between 1 and 2 years	<b>940,826</b>	1,715,266
Between 2 and 3 years	<b>1,225,560</b>	871,093
Over 3 years	<b>1,248,117</b>	723,131
	<b>8,563,390</b>	7,298,070
Less: provision for impairment	<b>(164,885)</b>	(106,275)
	<b>8,398,505</b>	7,191,795

# Notes to Financial Statements (Continued)

31 December 2018

## 21. TRADE AND BILLS RECEIVABLES (CONTINUED)

### (b) Impairment of trade receivables

The movements in the loss allowance for impairment of trade receivables are as follows:

	<b>2018</b> <i>RMB'000</i>	2017 <i>RMB'000</i>
At beginning of the year	<b>106,275</b>	91,312
Effect on adoption of IFRS 9	<b>700</b>	–
At beginning of the year (restated)	<b>106,975</b>	91,312
Impairment losses, net	<b>57,910</b>	14,963
At end of the year	<b>164,885</b>	106,275

#### ***Impairment under IFRS 9 for the year ended 31 December 2018***

An impairment analysis is performed at each reporting date using a provision matrix to measure expected credit losses. The provision rates are based on days past due for groupings of various customer segments with similar loss patterns (i.e., by product type, customer type and rating). The calculation reflects the probability-weighted outcome, and reasonable and supportable information that is available at the reporting date about past events, current conditions and forecasts of future economic conditions.

The Group applies the simplified approach to provide for expected credit losses prescribed by IFRS 9, which permits the use of the lifetime expected loss provision for trade receivables from third parties.

# Notes to Financial Statements (Continued)

31 December 2018

## 21. TRADE AND BILLS RECEIVABLES (CONTINUED)

### (b) Impairment of trade receivables (Continued)

#### *Impairment under IFRS 9 for the year ended 31 December 2018 (Continued)*

As at 31 December 2018, the Group has assessed that the expected loss rate for trade receivables from related parties was nil since the majority of related parties have a strong capacity to meet their contractual cash flow obligations in the near term. Thus, no loss allowance provision for trade receivables from related parties was recognized at 31 December 2018.

To measure the expected credit losses of trade receivables from third parties, trade receivables have been grouped based on shared credit risk characteristics and the days past due. The expected credit loss model also incorporates forward looking information. Set out below is the information about the credit risk exposure on the Group's trade receivables from third parties using a provision matrix:

#### **As at 31 December 2018**

	Current	Past due			Total	
		Within 1 year	Between 1 and 2 years	Between 2 and 3 years		
Expected credit loss rate	0.95%	1.32%	11.91%	22.38%	40.52%	7.65%
Gross carrying amount (RMB'000)	1,266,572	264,335	276,241	133,555	213,759	2,154,462
Expected credit losses (RMB'000)	12,002	3,484	32,889	29,886	86,624	164,885

As at 31 December 2018, there were trade and bill receivables accounting to RMB123,630,000 pledged to secure bank borrowings and other loans granted to the Group (31 December 2017: Nil).

# Notes to Financial Statements (Continued)

31 December 2018

## 21. TRADE AND BILLS RECEIVABLES (CONTINUED)

### (b) Impairment of trade receivables (Continued)

#### *Impairment under IAS 39 for the year ended 31 December 2017*

Included in the above provision for impairment of trade receivables, which was measured based on incurred credit losses under IAS 39, as at 31 December 2017 was a provision for individually impaired trade receivables of RMB106,275,000 with a carrying amount before provision of RMB6,777,178,000.

The individually impaired trade receivables as at 31 December 2017 related to customers that were in financial difficulties or were in default in principal payments and only a portion of the receivables is expected to be recovered.

The ageing analysis of trade and bills receivables as at 31 December 2017 that were not individually nor collectively considered to be impaired under IAS 39, is as follows:

	<i>2017</i> <i>RMB'000</i>
Neither past due nor impaired	3,988,580
Past due but not impaired:	
Within 1 year	1,533,954
Between 1 and 2 years	752,124
Between 2 and 3 years	466,264
Over 3 years	111,009
Total	<u>6,851,931</u>

Receivables that were neither past due nor impaired related to various related parties for whom there was no recent history of default.

Receivables that were past due but not impaired related to companies that had a good track record with the Group. Based on past experience, the Directors were of the opinion that no provision for impairment under IAS 39 was necessary in respect of these balances as there had not been a significant change in credit quality and the balances were still considered fully recoverable.

# Notes to Financial Statements (Continued)

31 December 2018

## 22. PREPAYMENTS, OTHER RECEIVABLES AND OTHER ASSETS

	<b>2018</b> <i>RMB'000</i>	2017 <i>RMB'000</i>
Due from related parties	<b>290,542</b>	247,413
Prepayments	<b>205,188</b>	314,514
Deposits	<b>29,855</b>	33,301
Other receivables	<b>45,199</b>	46,483
Other current assets	<b>329,119</b>	315,725
	<b>899,903</b>	957,436
Less: provision of impairment	<b>(11,043)</b>	(11,349)
Total	<b>888,860</b>	946,087

# Notes to Financial Statements (Continued)

31 December 2018

## 22. PREPAYMENTS, OTHER RECEIVABLES AND OTHER ASSETS (CONTINUED)

As at 31 December 2018, the amount of financial assets included in the above assets which were neither past due nor impaired was RMB217,066,000 (31 December 2017: RMB265,119,000).

Deposits and other receivables mainly represent rental deposits and deposits with suppliers.

The Group expects that the credit risk associated with other receivables due from related parties and deposits is considered to be low, since the majority of related parties have a strong capacity to meet their contractual cash flow obligations in the near term and deposits are turned over periodically. Thus, the impairment provision recognised during current year was limited to 12 months' expected losses and the expected loss rate for such balances were immaterial.

The Group has a large number of counterparties for its other receivables other than those from related parties. There is no concentration of credit risk. The Group has monitoring procedures to ensure that follow-up action is taken to recover overdue debts. In addition, the Group reviews the recoverability of these receivables at the year end to ensure that adequate impairment losses are made for irrecoverable amounts. The Group considers the probability of default upon initial recognition of an asset and whether there has been a significant increase in credit risk on an ongoing basis throughout the period end. To assess whether there is a significant increase in credit risk, the Group compares the risk of a default occurring on the asset as at the reporting date with the risk of default as at the date of initial recognition.

## 23. CASH AND CASH EQUIVALENTS, TIME DEPOSIT AND RESTRICTED CASH

	2018 <i>RMB'000</i>	2017 <i>RMB'000</i>
Cash and bank balances	1,749,652	1,683,923
Less: restricted cash ( <i>note a</i> )	(36,928)	(17,843)
Less: time deposit	(35,000)	–
	<b>1,677,724</b>	1,666,080
Cash and cash equivalents	<b>1,677,724</b>	1,666,080
Cash and bank balances denominated in:		
– RMB	1,738,364	790,417
– United States dollars	–	66,428
– Hong Kong dollars	7,619	818,685
– Indian rupees	3,669	8,393
	<b>1,749,652</b>	1,683,923

*Note a:* Restricted cash mainly represented deposits held for issued notes payable and letters of credit.

# Notes to Financial Statements (Continued)

31 December 2018

## 23. CASH AND CASH EQUIVALENTS, TIME DEPOSIT AND RESTRICTED CASH (CONTINUED)

As at 31 December 2018, the Group had time deposit amounting to RMB35 million at an annual interest rate of 1.95% with one year term.

The RMB is not freely convertible into other currencies. However, under the PRC's Foreign Exchange Control Regulations and Administration of Settlement, Sale and Payment of Foreign Exchange Regulations, the Group is permitted to exchange RMB for other currencies through banks authorised to conduct foreign exchange business.

Cash at banks earns interest at floating rates based on daily bank deposit rates. Short term time deposits are made for varying periods of between one day and three months depending on the immediate cash requirements of the Group, and earn interest at the respective short term time deposit rates. The bank balances and pledged deposits are deposited with creditworthy banks with no recent history of default.

## 24. TRADE AND BILLS PAYABLES

Trade and bills payables are non-interest-bearing and are normally settled within one year.

	<b>2018</b> <i>RMB'000</i>	<b>2017</b> <i>RMB'000</i>
Bills payable	<b>227,910</b>	56,693
Trade payables	<b>6,253,352</b>	5,730,663
	<b>6,481,262</b>	5,787,356

An ageing analysis of the trade and bills payables, based on the invoice date, at the end of the reporting period is as follows:

	<b>2018</b> <i>RMB'000</i>	<b>2017</b> <i>RMB'000</i>
Within 1 year	<b>4,273,450</b>	3,420,623
1 year to 2 years	<b>705,233</b>	1,091,211
2 years to 3 years	<b>698,311</b>	658,152
More than 3 years	<b>804,268</b>	617,370
	<b>6,481,262</b>	5,787,356

# Notes to Financial Statements (Continued)

31 December 2018

## 25. OTHER PAYABLES AND ACCRUALS

	<i>Notes</i>	<b>2018</b> <b>RMB'000</b>	2017 <i>RMB'000</i>
Advance from construction contract customers (note 19)		–	532,989
Advance from other customers		–	4,145
Contract liabilities	(a)	<b>312,064</b>	–
Taxes payable, other than income tax		<b>40,083</b>	56,741
Interest payables		<b>8,575</b>	5,674
Dividends payable		<b>344,704</b>	42,572
Other payables	(b)	<b>957,975</b>	468,552
		<b>1,663,401</b>	1,110,673

Notes:

- (a) Details of contract liabilities as at 31 December 2018 and 1 January 2018 are as follows:

	<b>31 December</b> <b>2018</b> <b>RMB'000</b>	1 January 2018 <i>RMB'000</i>
Short-term advances received from customers		
Sales of goods	<b>3,699</b>	4,145
Construction services	<b>308,365</b>	532,989
Total contract liabilities	<b>312,064</b>	537,134

Contract liabilities include short-term advances received to deliver goods and construction services. The decrease in contract liabilities in 2018 was mainly due to the decrease in short-term advances received from customers in relation to the provision of construction services at the end of the year.

- (b) Other payables are non-interest-bearing and have no fixed terms of repayment.



# Notes to Financial Statements (Continued)

31 December 2018

## 26. INTEREST-BEARING BANK BORROWINGS AND OTHER LOANS

	Effective interest rate (%)	Maturity	2018 RMB'000	2017 RMB'000
<b>Current</b>				
Bank borrowings:				
– unsecured	3.92%–5.66%	2018–2019	<b>1,061,087</b>	588,000
Other loans:				
– unsecured	4.35%–7.50%	2019	<b>259,136</b>	–
– secured ( <i>note a</i> )	7.50%	2019	<b>100,000</b>	–
			<b>359,136</b>	–
<b>Current portion of long term bank borrowings and other loans</b>				
Bank borrowings – unsecured	4.28%–5.15%	2018–2019	<b>579,962</b>	629,913
Bank borrowings – guaranteed	4.28%–4.41%	2018–2019	<b>14,963</b>	13,253
Other loans – unsecured	5.15%	2018–2019	<b>8,700</b>	2,900
			<b>603,625</b>	646,066
			<b>2,023,848</b>	1,234,066
<b>Non-current</b>				
Long term bank borrowings and other loans:				
Bank borrowings – unsecured	4.28%–6.62%	2019–2028	<b>2,364,598</b>	2,708,003
Bank borrowings – guaranteed	4.28%–4.41%	2019–2026	<b>83,620</b>	98,583
Other loans – unsecured	4.79%–5.70%	2020–2023	<b>457,830</b>	210,180
			<b>2,906,048</b>	3,016,766
			<b>4,929,896</b>	4,250,832
Interest-bearing bank borrowings and other loans denominated in:				
– RMB			<b>4,929,896</b>	4,250,832

*Note a:*

The above secured other loans are secured by trade and bills receivables with a net carrying value of RMB123,630,000 (note 21).

## Notes to Financial Statements (Continued)

31 December 2018

### 26. INTEREST-BEARING BANK BORROWINGS AND OTHER LOANS (CONTINUED)

The maturity profile of the interest-bearing bank borrowings and other loans as at the end of the reporting period is as follows:

	<b>2018</b> <i>RMB'000</i>	<b>2017</b> <i>RMB'000</i>
Analysed into:		
Bank borrowings repayable:		
Within one year	<b>1,656,012</b>	1,231,166
In the second year	<b>673,463</b>	566,074
In the third to fifth years, inclusive	<b>1,306,766</b>	1,532,890
Beyond five years	<b>467,989</b>	707,622
	<b>4,104,230</b>	4,037,752
Other loans repayable:		
Within one year	<b>367,836</b>	2,900
In the second year	<b>309,250</b>	5,800
In the third to fifth years, inclusive	<b>145,480</b>	195,480
Beyond five years	<b>3,100</b>	8,900
	<b>825,666</b>	213,080
Total	<b>4,929,896</b>	4,250,832

### 27. SHARE CAPITAL

	<b>2018</b> <i>RMB'000</i>	<b>2017</b> <i>RMB'000</i>
Issued and fully paid:		
2,967,542,000 (2017: 2,967,542,000) ordinary shares	<b>2,967,542</b>	2,967,542

A summary of movements in the Company's share capital is as follows:

	<b>Number of shares in issue</b> <i>(thousands)</i>	<b>Share capital</b> <i>RMB'000</i>
At 1 January 2017	2,967,542	2,967,542
Capital contribution	-	-
At 31 December 2017 and 1 January 2018	2,967,542	2,967,542
At 31 December 2018	<b>2,967,542</b>	<b>2,967,542</b>

# Notes to Financial Statements (Continued)

31 December 2018

## 28. RESERVES

The amounts of the Group's reserves and the movements therein for the years ended 31 December 2018 and 2017 are presented in the consolidated statement of changes in equity.

## 29. PARTLY-OWNED SUBSIDIARIES WITH MATERIAL NON-CONTROLLING INTERESTS

Details of the Group's subsidiaries that have material non-controlling interests are set out below:

	<b>2018</b>	2017
Percentage of equity interests held by non-controlling interests:		
Technologies & Engineering Company	<b>44%</b>	44%
Nanjing Environmental Protection	<b>7.89%</b>	7.89%
Tiandi Environmental	<b>35%</b>	35%
	<b>2018</b>	2017
	<b>RMB'000</b>	<b>RMB'000</b>
Profit for the year attributable to non-controlling interests:		
Technologies & Engineering Company	<b>20</b>	17,644
Nanjing Environmental Protection	<b>4,465</b>	7,336
Tiandi Environmental	<b>11,523</b>	18,217
Dividends paid to non-controlling interests of Nanjing Environmental Protection	<b>2,201</b>	32,032
Accumulated balances of non-controlling interests at the reporting date:		
Technologies & Engineering Company	<b>111,505</b>	110,840
Nanjing Environmental Protection	<b>25,394</b>	23,040
Tiandi Environmental	<b>57,686</b>	46,162

## Notes to Financial Statements (Continued)

31 December 2018

### 29. PARTLY-OWNED SUBSIDIARIES WITH MATERIAL NON-CONTROLLING INTERESTS (CONTINUED)

The following table illustrates the summarized financial information of Technologies & Engineering Company, Nanjing Environmental Protection and Tiandi Environmental. The amounts disclosed are before any inter-company eliminations:

<b>2018</b>	<b>Technologies &amp; Engineering Company RMB'000</b>	<b>Nanjing Environmental Protection RMB'000</b>	<b>Tiandi Environmental RMB'000</b>
Revenue	3,071,488	480,523	92,559
Total expenses	(3,071,443)	(423,934)	(59,635)
Profit for the year	45	56,589	32,924
Total comprehensive income for the year	(1,521)	56,589	32,924
Current assets	4,495,162	834,543	71,988
Non-current assets	401,199	605,639	184,400
Current liabilities	(4,389,490)	(794,066)	(52,072)
Non-current liabilities	(253,450)	(324,270)	(39,500)
Net cash flows from operating activities	68,709	101,728	73,286
Net cash flows from/(used in) investing activities	13,699	(46,837)	(14,629)
Net cash flows used in financing activities	(140,363)	(36,852)	(44,311)
Effect of foreign exchange rate changes, net	(2,117)	-	-
Net (decrease)/increase in cash and cash equivalents	(60,072)	18,039	14,346

# Notes to Financial Statements (Continued)

31 December 2018

## 29. PARTLY-OWNED SUBSIDIARIES WITH MATERIAL NON-CONTROLLING INTERESTS (CONTINUED)

2017	Technologies & Engineering Company <i>RMB'000</i>	Nanjing Environmental Protection <i>RMB'000</i>	Tiandi Environmental <i>RMB'000</i>
Revenue	3,199,384	521,192	109,906
Total expenses	(3,158,509)	(428,217)	(57,857)
Profit for the year	40,875	92,975	52,049
Total comprehensive income for the year	39,945	92,975	52,049
Current assets	3,677,313	772,652	88,147
Non-current assets	409,858	636,467	184,395
Current liabilities	(3,819,612)	(742,880)	(61,649)
Non-current liabilities	(15,650)	(374,226)	(79,000)
Net cash flows (used in)/from operating activities	(52,993)	64,870	43,564
Net cash flows used in investing activities	(32,397)	(40,361)	(99)
Net cash flows used in financing activities	(65,723)	(11,499)	(46,062)
Effect of foreign exchange rate changes, net	(3,811)	-	-
Net (decrease)/increase in cash and cash equivalents	(154,924)	13,010	(2,597)

# Notes to Financial Statements (Continued)

31 December 2018

## 30. NOTE TO THE CONSOLIDATED STATEMENT OF CASH FLOWS

Changes in liabilities arising from financing activities :

<b>2018</b>	<b>Interest-bearing bank borrowings and other loans RMB'000</b>	<b>Other payables and accruals RMB'000</b>
As at 1 January 2018	<b>4,250,832</b>	<b>1,110,673</b>
Changes from financing cash flows	<b>678,014</b>	<b>(307,719)</b>
Interest expenses	<b>1,050</b>	<b>214,785</b>
2017 final dividends	–	<b>385,780</b>
Dividends declared by a subsidiary to its non-controlling interests	–	<b>2,201</b>
Changes from operating cash flows	–	<b>(66,702)</b>
Changes from investing cash flows	–	<b>324,383</b>
As at 31 December 2018	<b>4,929,896</b>	<b>1,663,401</b>
<b>2017</b>	<b>Interest-bearing bank borrowings and other loans RMB'000</b>	<b>Other payables and accruals RMB'000</b>
As at 1 January 2017	4,632,155	1,047,059
Changes from financing cash flows	(381,323)	(598,231)
Interest expenses	–	194,284
2016 final dividends	–	370,943
Dividends declared by a subsidiary to its non-controlling interests	–	32,032
Changes from operating cash flows	–	(88,768)
Changes from investing cash flows	–	153,354
As at 31 December 2017	4,250,832	1,110,673

# Notes to Financial Statements (Continued)

31 December 2018

## 31. OPERATING LEASE ARRANGEMENTS

### As lessee

The Group leases certain of its properties under operating lease arrangements. Leases for properties are negotiated for terms of five years.

As at 31 December 2018 and 2017, the Group had total future minimum lease payments under non-cancellable operating leases falling due as follows:

	<b>2018</b> <i>RMB'000</i>	2017 <i>RMB'000</i>
Within one year	<b>33,964</b>	33,798
In the second to fifth years, inclusive	<b>17,159</b>	41,827
After five years	–	–
	<b>51,123</b>	75,625

## 32. CONTINGENT LIABILITIES

As at 31 December 2018 and 2017, the Group did not have any significant contingent liabilities.

## 33. COMMITMENTS

In addition to the operating lease commitments detailed in note 31 above, the Group had the following capital commitments at the end of the reporting period:

	<b>2018</b> <i>RMB'000</i>	2017 <i>RMB'000</i>
Contracted, but not provided for	<b>1,446,348</b>	1,346,919

## 34. RELATED PARTY TRANSACTIONS

The Group is part of China Datang Corporation and had significant transactions with China Datang Corporation during the year.

These related party transactions also constitute connected transactions or continuing connected transactions as defined in Chapter 14A of the Listing Rules.

In addition to the related party transactions disclosed elsewhere in the financial statements, the following is a summary of the significant related party transactions entered into the ordinary course of business between the Group and its related parties during the year.

# Notes to Financial Statements (Continued)

31 December 2018

## 34. RELATED PARTY TRANSACTIONS (CONTINUED)

### (a) Significant related party transactions

	<i>Notes</i>	<b>2018</b> <i>RMB'000</i>	2017 <i>RMB'000</i>
<b>Sales of goods and rendering of services to China Datang Corporation</b>			
Environmental protection and energy conservation solutions	(i)	<b>5,755,717</b>	5,184,200
Renewable energy engineering		<b>275,961</b>	534,268
Thermal power engineering		<b>494,237</b>	–
Others		<b>183,421</b>	345,539
		<b>6,709,336</b>	6,064,007
<b>Purchases of goods and receiving of services from China Datang Corporation</b>			
Water supply and electricity supply	(i)	<b>756,548</b>	648,800
Ancillary services under the concession operations	(i)	<b>99,613</b>	110,374
Logistics services	(i)	<b>154,901</b>	75,533
Property leases	(ii)	<b>33,522</b>	33,349
Wind power electricity and other products	(i)	<b>447,229</b>	184,187
		<b>1,491,813</b>	1,052,243
<b>Payment of financial leasing to subsidiaries of China Datang Corporation</b>			
Datang Financial Lease Co., Ltd. (“Datang Financial Lease”)	(iii)	–	133,146
<b>Purchase of assets from subsidiaries of China Datang Corporation</b>			
Purchase of assets	(i)	–	237,434
<b>Loans from subsidiaries of China Datang Corporation</b>			
China Datang Finance Co., Ltd. (“Datang Finance”) ( <i>note a</i> )	(iv)	<b>1,745,000</b>	85,000
Datang Financial lease ( <i>note a</i> )		<b>265,000</b>	–
Datang Commercial Factoring Co., Ltd. (“Datang Commercial Factoring”) ( <i>note a</i> )		<b>159,136</b>	–
		<b>2,169,136</b>	85,000



# Notes to Financial Statements (Continued)

31 December 2018

## 34. RELATED PARTY TRANSACTIONS (CONTINUED)

### (a) Significant related party transactions (Continued)

	<i>Notes</i>	<b>2018</b> <b>RMB'000</b>	2017 <i>RMB'000</i>
<b>Interest expense on loans from subsidiaries of China Datang Corporation</b>			
	(iv)		
Datang Finance		<b>7,403</b>	780
Datang Financial lease		<b>2,230</b>	–
Datang Commercial Factoring		<b>2,218</b>	–
		<b>11,851</b>	780
<b>Interest income from subsidiaries of China Datang Corporation</b>			
	(iv)		
Datang Finance		<b>9,062</b>	2,550

*Note a:*

#### Loans from subsidiaries of China Datang Corporation

	31 December 2017	Proceeds	Repayment	31 December 2018	Duration	Effective interest rate (%)	Type
Datang Finance	85,000	1,745,000	1,495,000	<b>335,000</b>	13/9/2017– 26/12/2023	4.35–5.22	unsecured
Datang Financial lease	–	265,000	–	<b>265,000</b>	1/11/2018– 2/12/2020	5.70	unsecured
Datang Commercial Factoring	–	150,000	50,000	<b>100,000</b>	19/9/2018– 18/9/2019	7.50	secured
Datang Commercial Factoring	–	9,136	–	<b>9,136</b>	13/11/2018– 13/11/2019	7.50	unsecured
	<b>85,000</b>	<b>2,169,136</b>	<b>1,545,000</b>	<b>709,136</b>			

## 34. RELATED PARTY TRANSACTIONS (CONTINUED)

### (a) Significant related party transactions (Continued)

All transactions with related parties were conducted at prices and on terms mutually agreed by the parties involved, which are determined as follows:

#### (i) ***Sales of goods and rendering of services to China Datang Corporation, purchases of goods and receiving of services from China Datang Corporation (excluding property leases)***

- a. Pricing policies for products: The pricing policies for products are as follows:
  - (a) the bidding price where the bidding process is required; or
  - (b) where no bidding process is involved, the market price.
- b. Pricing policies for concession operations (desulfurization and denitrification) services: The desulfurization and denitrification tariffs under the concession operations services are determined based on government-prescribed price, while the prices for by-products are determined based on the market price. In respect of the auxiliary services offered to the Group by China Datang Corporation under the desulfurization and denitrification concession operations, the price is determined in accordance with the costs of human resources in connection with the auxiliary services and related management expenses as well as relevant maintenance expenses for the equipment of power plants and with reference to the industry average level.
- c. Pricing policies for services other than concession operations services: The pricing policies for these kinds of services are as follows:
  - (a) the bidding price where the bidding process is required; or
  - (b) where no bidding process is involved, the market price.
- d. Pricing policy for procurement of equipment: In respect of equipment procurement from China Datang Corporation, in most circumstances bidding procedures shall apply for the determination of the price. Only in exceptional circumstances, such as urgent purchases by the Group, bidding procedures can be skipped by the Group where the purchase price shall be determined by experts of the Group based on the fair market value and historical records of the procurement price.

#### (ii) ***Purchases of lease services from China Datang Corporation***

Pricing policy: The rental for property leases is determined via negotiations between the parties with reference to the market rental for properties with similar conditions.

# Notes to Financial Statements (Continued)

31 December 2018

## 34. RELATED PARTY TRANSACTIONS (CONTINUED)

### (a) Significant related party transactions (Continued)

#### (iii) Financial leasing

Datang Financial Lease provides financial leasing services to Nanjing Environmental Protection for procurement of a denitrification production line and various items of equipment.

Pricing policy: Rentals paid by Nanjing Environmental Protection to Datang Financial Lease include (a) costs for procurement of such denitrification production line and various items of equipment and (b) interest. The interest is determined based on the benchmark interest rates for loans as implemented by the PBOC.

#### (iv) Financial services

Datang Finance provides loan services, deposit services and other financial services to the Group.

Pricing policy: The pricing policies for financial services are as follows:

- (a) the interest rate for the Group's deposits with Datang Finance shall not be lower than the equivalent deposit interest rate as provided by other financial institutions in the PRC by reference to the benchmark interest rates published by the People's Bank of China ("PBOC");
- (b) the interest rate for loans granted to the Group by Datang Finance shall not be higher than the equivalent loan interest rate as charged by other financial institutions in the PRC by reference to the benchmark interest rates published by the PBOC; and
- (c) the fees charged by Datang Finance for the provision of financial services to the Group other than deposit services and loan services shall not be higher than the rate charged by other financial institutions in the PRC for the same or similar type of services.

China Datang Corporation Capital Holding Co., Ltd. ("**Datang Capital**") and the Company entered into a financial services agreement ("**Agreement**") on 14 June 2018. Financial services provided by Datang Capital to the Group under the Agreement include financial leasing and commercial factoring services.

## 34. RELATED PARTY TRANSACTIONS (CONTINUED)

### (a) Significant related party transactions (Continued)

#### (iv) *Financial services (Continued)*

Pricing Policy: Datang Capital has undertaken to provide the aforementioned financial services to the Group based on the following pricing principles:

- (a) financial leasing service – the rent paid by the Group to Datang Capital includes (i) procurement costs and (ii) interests. The relevant interests are determined based on the benchmark interest rates for borrowings as implemented by the PBOC;
- (b) commercial factoring service – the comprehensive interest rate relating to the commercial factoring services provided by Datang Capital to the Group shall be based on fair and reasonable market pricing and normal commercial terms. In particular, the rate shall not be higher than the interest rate level provided by independent third parties to the Group for the same type of service during the same period or the interest rate of the same type of service provided by Datang Capital to third parties with same credit rating.

The above services are provided by Datang Financial Lease and Datang Commercial Factoring, the subsidiaries of Datang Capital, respectively.

# Notes to Financial Statements (Continued)

31 December 2018

## 34. RELATED PARTY TRANSACTIONS (CONTINUED)

### (b) Outstanding balances with related parties

Other than those disclosed elsewhere in the financial statements, the outstanding balances with related parties at 31 December 2018 and 2017 are as follows:

	<b>2018</b> <i>RMB'000</i>	2017 <i>RMB'000</i>
<b>Cash and cash equivalents</b>		
Datang Finance	<b>1,440,898</b>	782,235
<b>Trade and bills receivables</b>		
China Datang Corporation	<b>5,919,857</b>	5,744,158
<b>Prepayments, other receivables and other assets</b>		
China Datang Corporation		
Prepayments	<b>137,487</b>	49,228
Other receivables	<b>153,055</b>	198,185
	<b>290,542</b>	247,413
<b>Other non-current assets</b>		
China Datang Corporation	<b>94,124</b>	93,870
<b>Construction contracts</b>		
Due from contract customers included in construction contracts		
China Datang Corporation	–	284,395
<b>Contract assets</b>		
China Datang Corporation	<b>769,674</b>	–
<b>Loans</b>		
Datang Finance	<b>335,000</b>	85,000
Datang Financial Lease	<b>265,000</b>	–
Datang Commercial Factoring	<b>109,136</b>	–
	<b>709,136</b>	85,000
<b>Trade and bills payables</b>		
China Datang Corporation	<b>684,701</b>	711,197
<b>Other payables and accruals</b>		
China Datang Corporation	<b>592,784</b>	467,145

# Notes to Financial Statements (Continued)

31 December 2018

## 34. RELATED PARTY TRANSACTIONS (CONTINUED)

### (c) Transactions with other government-related entities in the PRC

The Group operates in an economic regime currently dominated by entities directly or indirectly controlled, jointly controlled or significantly influenced by the PRC government and numerous government authorities and agencies (collectively referred to as “**government-related entities**”). China Datang Corporation, the parent and ultimate holding company of the Company, is a PRC state-owned enterprise and these government-related entities are also considered the related parties of the Group in this respect.

Apart from the transactions with China Datang Corporation mentioned above, the Group also conducts some business activities with other government-related entities in the ordinary course of business. These transactions are carried out on terms similar to those that would be entered into with non-government-related entities.

The Group prices its services and products based on commercial negotiations. The Group has also established its approval process for the sale of goods, provision of services, purchase of products and receiving of services and its financing policy for borrowings. Such approval process and financing policy do not depend on whether the counterparties are government-related entities or not.

Having considered the possibility for transactions to be impacted by related party relationships, the Group’s approval processes and financing policy, and what information would be necessary for an understanding of the potential effect of the relationship on the consolidated financial statements, the Directors are of the opinion that further information about the following transactions that are collectively significant is required for disclosure:

#### – **Deposits and borrowings**

Except for the cash and cash equivalents deposited in Datang Finance and Wing Lung Bank in Hong Kong, the Group deposits most of its cash in government-related financial institutions, and also obtains short-term and long-term loans from these financial institutions in the ordinary course of business. The interest rates of the bank deposits and loans are regulated by the PBOC.

### (d) Compensation of key management personnel of the Group

	<b>2018</b> <i>RMB'000</i>	<b>2017</b> <i>RMB'000</i>
Short term employee benefits	<b>6,230</b>	5,076
Post-employment benefits	<b>557</b>	414
Total compensation paid to key management personnel	<b>6,787</b>	5,490

Further details of directors’ and supervisors’ emoluments are included in note 8 to the financial statements.

# Notes to Financial Statements (Continued)

31 December 2018

## 34. RELATED PARTY TRANSACTIONS (CONTINUED)

(e) As at 31 December 2018 and 2017, the Group entered into lease agreements with China Datang Corporation. The operating lease commitments are as follows:

	2018 RMB'000	2017 RMB'000
Leases of properties	<b>50,918</b>	75,277

## 35. FINANCIAL INSTRUMENTS BY CATEGORY

The carrying amounts of each of the categories of the Group's financial instruments as at the end of the reporting period are as follows:

Financial assets	31 December 2018			31 December 2017		
	Financial assets at amortised cost RMB'000	Equity investments at fair value through other comprehensive income RMB'000	Total RMB'000	Loans and receivables RMB'000	Available-for- sale financial investment RMB'000	Total RMB'000
Available-for-sale financial investments	-	-	-	-	5,000	5,000
Equity investments designated at fair value through other comprehensive income	-	7,171	7,171	-	-	-
Financial assets included in other non-current assets	93,429	-	93,429	93,472	-	93,472
Trade and bills receivables	8,398,505	-	8,398,505	7,191,795	-	7,191,795
Financial assets included in prepayments, other receivables and other assets	217,066	-	217,066	266,619	-	266,619
Cash and cash equivalents	1,677,724	-	1,677,724	1,666,080	-	1,666,080
Time deposit	35,000	-	35,000	-	-	-
Restricted cash	36,928	-	36,928	17,843	-	17,843
	<b>10,458,652</b>	<b>7,171</b>	<b>10,465,823</b>	9,235,809	5,000	9,240,809

# Notes to Financial Statements (Continued)

31 December 2018

## 35. FINANCIAL INSTRUMENTS BY CATEGORY (CONTINUED)

	31 December	
	2018 Financial liabilities at amortized cost RMB'000	2017 Financial liabilities at amortized cost RMB'000
<b>Financial liabilities</b>		
Trade and bills payables	6,481,262	5,787,356
Financial liabilities included in other payables and accruals	1,311,254	516,798
Interest-bearing loans and borrowings	4,929,896	4,250,832
	<b>12,722,412</b>	<b>10,554,986</b>

### Transfers of financial assets

#### *Transferred financial assets that are derecognised in their entirety*

At 31 December 2018, the Company and its certain subsidiaries endorsed certain bills receivable accepted by banks and Datang Finance (the “**Derecognised Bills**”) to certain of its suppliers in order to settle the trade payables due to such suppliers with a carrying amount in aggregate of RMB975,788,000. The Derecognised Bills had a maturity of one to six months at the end of the reporting period. In accordance with the Law of Negotiable Instruments in the PRC, the holders of the Derecognised Bills have a right of recourse against the Group if the PRC banks or Datang Finance default (the “**Continuing Involvement**”). In the opinion of the directors, the Group has transferred substantially all risks and rewards relating to the Derecognised Bills. Accordingly, it has derecognised the full carrying amounts of the Derecognised Bills and the associated trade payables. The maximum exposure to loss from the Group’s Continuing Involvement in the Derecognised Bills and the undiscounted cash flows to repurchase these Derecognised Bills is equal to their carrying amounts. In the opinion of the directors, the fair values of the Group’s Continuing Involvement in the Derecognised Bills are not significant.

During the year ended 31 December 2018, the Group has not recognised any gain or loss on the date of transfer of the Derecognised Bills. No gains or losses were recognised from the Continuing Involvement, both during the year or cumulatively. The endorsement has been made evenly throughout the year.



# Notes to Financial Statements (Continued)

31 December 2018

## 36. FAIR VALUE AND FAIR VALUE HIERARCHY OF FINANCIAL INSTRUMENTS

### Fair value

The carrying amounts and fair values of the Group's financial instruments, other than those with carrying amounts that reasonably approximate to fair values and those carried at fair value, are as follows:

	Carrying amounts		Fair values	
	2018 (RMB'000)	2017 (RMB'000)	2018 (RMB'000)	2017 (RMB'000)
<b>Financial assets</b>				
Financial assets included in other non-current assets	<b>93,429</b>	93,472	<b>94,099</b>	93,752
<b>Financial liabilities</b>				
Long term interest-bearing loans and borrowings (note 26)	<b>2,906,048</b>	3,016,766	<b>2,874,731</b>	2,975,689

Management has assessed that the fair values of cash and cash equivalents, restricted cash, time deposit, trade and bills receivables, financial assets included in prepayments, other receivables and other assets, trade and bills payables, financial liabilities included in other payables and accruals, the current portion of interest-bearing loans and borrowings, approximate to their carrying amounts largely due to the short term maturities of these instruments.

The Group's corporate finance team headed by the finance manager is responsible for determining the policies and procedures for the fair value disclosure of financial instruments. The corporate finance team reports directly to management. As at 31 December 2018 and 2017, the corporate finance team analysed the movements in the values of financial instruments and determined the major inputs applied in the valuation. The valuation was reviewed and approved by management.

The fair values of the financial assets and liabilities are included at the amount at which the instrument could be exchanged in a current transaction between willing parties, other than in a forced or liquidation sale.

The following methods and assumptions were used to estimate the fair values:

- The fair values of the non-current portion of interest-bearing loans and borrowings have been calculated by discounting the expected future cash flows using rates currently available for instruments with similar terms, credit risk and remaining maturities. The Group's own non-performance risks for interest-bearing loans and borrowings as at 31 December 2018 and 2017 were assessed to be insignificant.

# Notes to Financial Statements (Continued)

31 December 2018

## 36. FAIR VALUE AND FAIR VALUE HIERARCHY OF FINANCIAL INSTRUMENTS (CONTINUED)

### Fair value (Continued)

- The fair values of the financial assets included in other non-current assets have been calculated by discounting the expected future cash flows using rates currently available for instruments with similar terms, credit risk and remaining maturities.

For the fair value of the unlisted equity investments at fair value through other comprehensive income, which were previously classified as available-for-sale equity investments, management has estimated the potential effect of using reasonably possible alternatives as inputs to the valuation model and has quantified this as a reduction in fair value of approximately RMB717,150, using less favourable assumptions, and an increase in fair value of approximately RMB717,150, using more favourable assumptions.

Below is a summary of significant unobservable inputs to the valuation of financial instruments together with a quantitative sensitivity analysis as at 31 December 2018:

	Valuation technique	Significant unobservable input	Input	Sensitivity of fair value to the input
Unlisted equity investments	Valuation multiples	Average EV/SALES multiple of peers	2018: 2.9x	10% increase/decrease in multiple would result in increase/decrease in fair value by 6%
		Discount for lack of marketability	2018: 25%	10% increase/decrease in discount would result in decrease/increase in fair value by 3%

# Notes to Financial Statements (Continued)

31 December 2018

## 36. FAIR VALUE AND FAIR VALUE HIERARCHY OF FINANCIAL INSTRUMENTS (CONTINUED)

### Fair value hierarchy

The following tables illustrate the fair value measurement hierarchy of the Group's financial instruments:

#### Assets measured at fair value

	Fair value measurement using			Total RMB'000
	Quoted prices in active markets (Level 1) RMB'000	Significant observable inputs (Level 2) RMB'000	Significant unobservable inputs (Level 3) RMB'000	
<b>As at 31 December 2018</b>				
Equity investments designated at fair value through other comprehensive income	–	–	7,171	7,171

#### Assets for which fair values are disclosed

	Fair value measurement using			Total RMB'000
	Quoted prices in active markets (Level 1) RMB'000	Significant observable inputs (Level 2) RMB'000	Significant unobservable inputs (Level 3) RMB'000	
<b>As at 31 December 2018</b>				
Financial assets included in other non-current assets	–	94,099	–	94,099
<b>As at 31 December 2017</b>				
Financial assets included in other non-current assets	–	93,752	–	93,752

# Notes to Financial Statements (Continued)

31 December 2018

## 36. FAIR VALUE AND FAIR VALUE HIERARCHY OF FINANCIAL INSTRUMENTS (CONTINUED)

### Fair value hierarchy (Continued)

#### Liabilities for which fair values are disclosed

	Fair value measurement using			Total RMB'000
	Quoted prices in active markets (Level 1) RMB'000	Significant observable inputs (Level 2) RMB'000	Significant unobservable inputs (Level 3) RMB'000	
<b>As at 31 December 2018</b>				
Long term interest-bearing loans and borrowings	–	2,874,731	–	2,874,731
<b>As at 31 December 2017</b>				
Long term interest-bearing loans and borrowings	–	2,975,689	–	2,975,689

## 37. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES

The Group's principal financial instruments comprise interest-bearing bank borrowings, cash and cash equivalents. The main purpose of these financial instruments is to raise finance for the Group's operations. The Group has various other financial assets and liabilities such as trade and bills receivables and trade and bills payables, which arise directly from its operations.

The main risks arising from the Group's financial instruments are interest rate risk, foreign currency risk, credit risk and liquidity risk. Generally, the senior management of the Company meets regularly to analyze and formulate measures to manage the Group's exposure to these risks. Generally, the Group introduces conservative strategies on its risk management. As the Group's exposure to these risks is kept to a minimum, the Group has not used any derivatives and other instruments for hedging purposes. The Group does not hold or issue derivative financial instruments for trading purposes. The management of the Company reviews and agrees policies for managing each of these risks and they are summarized below:

### (a) Interest rate risk

The Group's exposure to the risk of changes in market interest rates relates primarily to the Group's long term debt obligations with floating interest rates.

The Group regularly reviews and monitors the mix of fixed and floating interest rate borrowings in order to manage its interest rate risk. The Group's interest-bearing bank borrowings, restricted cash, time deposit and cash and cash equivalents are stated at amortized cost and not revalued on a periodic basis. Floating rate interest income and expenses are credited/charged to profit or loss as earned/incurred.

# Notes to Financial Statements (Continued)

31 December 2018

## 37. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES (CONTINUED)

### (a) Interest rate risk (Continued)

As at 31 December 2018, if there would be a general increase/decrease in the market interest rates by 10 basis points, with all other variables held constant, the Group's consolidated pre-tax profit would have decreased/increased by approximately RMB3,572,000 (31 December 2017: RMB3,737,000) and there would be no impact on other components of the consolidated equity, except for retained profits, of the Group. The estimated 10 basis points increase or decrease represents management's assessment of a reasonably possible change in market interest rates over the period until the next annual year end.

### (b) Foreign currency risk

Foreign currency risk primarily arises from certain significant foreign currency deposits, trade receivables, and trade payables denominated in United States Dollars ("USD") and Hong Kong Dollars ("HKD"). The Group Treasury closely monitors the international foreign currency market on the change of exchange rates and takes this into consideration when depositing foreign currency deposits and borrowing loans. As at 31 December 2018, the Group had significant exposures to USD and HKD.

The Group has transactional currency exposures which arise from sales or purchases by operating units in currencies other than the units' functional currencies. The exposure was insignificant for the years ended 31 December 2018 and 31 December 2017.

	Increase/ (decrease) in rate %	Increase/ (decrease) in profit after tax RMB'000	Increase/ (decrease) in equity RMB'000
<b>2018</b>			
If RMB weakens against USD	<b>5</b>	<b>7,635</b>	<b>7,635</b>
If RMB strengthens against USD	<b>(5)</b>	<b>(7,635)</b>	<b>(7,635)</b>
If RMB weakens against HKD	<b>5</b>	<b>381</b>	<b>381</b>
If RMB strengthens against HKD	<b>(5)</b>	<b>(381)</b>	<b>(381)</b>
<b>2017</b>			
If RMB weakens against USD	5	11,100	11,100
If RMB strengthens against USD	(5)	(11,100)	(11,100)
If RMB weakens against HKD	5	40,934	40,934
If RMB strengthens against HKD	(5)	(40,934)	(40,934)

# Notes to Financial Statements (Continued)

31 December 2018

## 37. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES (CONTINUED)

### (c) Credit risk

The carrying amounts of cash and cash equivalents, restricted cash, time deposits, trade and bills receivables, financial assets included in prepayments, other receivables and other assets, financial assets included in other non-current assets represent the Group's maximum exposure to credit risk in relation to these financial assets. Substantially all of the Group's cash and cash equivalents, restricted cash, time deposits are held in major financial institutions located in the PRC, which management believe are of high credit quality. The Group has policies to control the size of the deposits to be placed with various reputable financial institutions according to their market reputation, operating scale and financial background with a view to limiting the credit exposure to a single financial institution to an acceptable level.

As the Group's major customers are China Datang Corporation's subsidiaries or other state-owned enterprises, the Group believes that they are reliable and of high credit quality and hence, there is no significant credit risk with these customers. The senior management of the Company keeps reviewing and assessing the creditworthiness of the Group's existing customers on an ongoing basis.

Further quantitative data in respect of the Group's exposure to credit risk arising from trade and bills receivables, and financial assets included in prepayments, other receivables and other assets are disclosed in note 21 and note 22 to the financial statements.

# Notes to Financial Statements (Continued)

31 December 2018

## 37. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES (CONTINUED)

### (c) Credit risk (Continued)

#### *Maximum exposure and year-end staging as at 31 December 2018*

The table below shows the credit quality and the maximum exposure to credit risk based on the Group's credit policy, which is mainly based on past due information unless other information is available without undue cost or effort, and year-end staging classification as at 31 December 2018. The amounts presented are gross carrying amounts for financial assets.

	12-month ECLs	Lifetime ECLs			Total RMB'000
	Stage 1 RMB'000	Stage 2 RMB'000	Stage 3 RMB'000	Simplified approach RMB'000	
Contract assets*	–	–	–	982,436	982,436
Trade receivables*	–	–	–	8,398,505	8,398,505
Financial assets included in prepayments, other receivables and other assets					
– Normal**	217,066	–	–	–	217,066
– Doubtful**	–	–	–	–	–
Restricted cash and time deposit					
– Not yet past due	71,928	–	–	–	71,928
Cash and cash equivalents					
– Not yet past due	1,677,724	–	–	–	1,677,724
	<u>1,966,718</u>	<u>–</u>	<u>–</u>	<u>9,380,941</u>	<u>11,347,659</u>

\* For contract assets and trade receivables to which the Group applies the simplified approach for impairment, information based on the provision matrix is disclosed in notes 20 and 21 to the financial statements, respectively.

\*\* The credit quality of the financial assets included in prepayments, other receivables and other assets is considered to be "normal" when they are not past due and there is no information indicating that the financial assets had a significant increase in credit risk since initial recognition. Otherwise, the credit quality of the financial assets is considered to be "doubtful".

# Notes to Financial Statements (Continued)

31 December 2018

## 37. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES (CONTINUED)

### (c) Credit risk (Continued)

#### *Maximum exposure as at 31 December 2017*

The credit risk of the Group's other financial assets, which comprise cash and cash equivalents, trade and bills receivables, other receivables and other assets, arises from default of the counterparty, with a maximum exposure equal to the carrying amounts of these instruments.

Since the Group trades only with recognised and creditworthy third parties, there is no requirement for collateral. Concentrations of credit risk are managed by customer/counterparty. There are no significant concentrations of credit risk within the Group as the customer bases of the Group's trade receivables are widely dispersed in different customers.

Further quantitative data in respect of the Group's exposure to credit risk arising from trade receivables are disclosed in note 21 to the financial statements.

### (d) Liquidity risk

The liquidity of the Group is primarily dependent on its ability to maintain adequate cash inflows from operations to meet its debt obligations as they fall due, and its ability to obtain external financing to meet its committed future capital expenditure.

The maturity profile of the Group's financial liabilities as at 31 December 2018 and 2017, based on the contractual undiscounted payments, is as follows:

	31 December 2018				Total RMB'000
	Within 1 year RMB'000	1 to 2 years RMB'000	2 to 5 years RMB'000	More than 5 years RMB'000	
Short term interest-bearing loans and borrowings	2,023,848	-	-	-	2,023,848
Long term interest-bearing loans and borrowings	210,502	1,110,558	1,629,053	491,814	3,441,927
Trade and bills payables	6,481,262	-	-	-	6,481,262
Financial liabilities included in other payables and accruals	1,311,254	-	-	-	1,311,254
	<b>10,026,866</b>	<b>1,110,558</b>	<b>1,629,053</b>	<b>491,814</b>	<b>13,258,291</b>



# Notes to Financial Statements (Continued)

31 December 2018

## 37. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES (CONTINUED)

### (d) Liquidity risk (Continued)

	31 December 2017				
	Within 1 year <i>RMB'000</i>	1 to 2 years <i>RMB'000</i>	2 to 5 years <i>RMB'000</i>	More than 5 years <i>RMB'000</i>	Total <i>RMB'000</i>
Short term interest-bearing loans and borrowings	1,234,066	–	–	–	1,234,066
Long term interest-bearing loans and borrowings	193,050	708,718	1,970,609	749,024	3,621,401
Trade and bills payables	5,787,356	–	–	–	5,787,356
Financial liabilities included in other payables and accruals	516,798	–	–	–	516,798
	<u>7,731,270</u>	<u>708,718</u>	<u>1,970,609</u>	<u>749,024</u>	<u>11,159,621</u>

### (e) Capital management

The Group's primary objectives for managing capital are to safeguard the Group's ability to continue as a going concern and to maintain healthy capital ratio in order to support its business and maximize shareholders' value.

The Group sets the amount of capital in proportion to risk. The Group manages its capital structure and makes adjustments to it in light of changes in economic conditions and the risk characteristics of the underlying assets. In order to maintain or adjust the capital structure, the Group may adjust the amount of dividends paid to shareholders, return capital to shareholders, issue new shares or sell assets to reduce debts. No change was made in the objectives, policies or processes for managing capital during the years ended 31 December 2018 and 2017.

The Group monitors capital using a gearing ratio, which is net debt divided by the capital plus net debt. Net debt includes trade and bills payables, other payables and accruals and interest-bearing loans and borrowings, less cash and cash equivalents and restricted cash and time deposit. Capital includes the equity attributable to owners of the parent and non-controlling interests stated in the consolidated statement of financial position.

# Notes to Financial Statements (Continued)

31 December 2018

## 37. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES (CONTINUED)

### (e) Capital management (Continued)

The Group's strategy is to maintain the gearing ratio at a healthy capital level in order to support its businesses. The principal strategies adopted by the Group include, but are not limited to, reviewing future cash flow requirements and the ability to meet debt repayment schedules when they fall due, maintaining a reasonable level of available banking facilities and adjusting investment plans and financing plans, if necessary. The gearing ratios as at the end of the reporting periods were as follows:

	<b>2018</b> <i>RMB'000</i>	2017 <i>RMB'000</i>
Trade and bills payables ( <i>note 24</i> )	<b>6,481,262</b>	5,787,356
Other payables and accruals ( <i>note 25</i> )	<b>1,663,401</b>	1,110,673
Interest-bearing loans and borrowings ( <i>note 26</i> )	<b>4,929,896</b>	4,250,832
Less: cash and cash equivalents ( <i>note 23</i> )	<b>(1,677,724)</b>	(1,666,080)
Less: restricted cash and time deposit ( <i>note 23</i> )	<b>(71,928)</b>	(17,843)
Net debt	<b>11,324,907</b>	9,464,938
Total equity	<b>7,319,322</b>	6,926,361
Capital and net debt	<b>18,644,229</b>	16,391,299
Gearing ratio	<b>61%</b>	58%

## 38. EVENTS AFTER THE REPORTING PERIOD

As of the date of approval of the financial statements, the Group had no significant events after the reporting period that need to be disclosed.

# Notes to Financial Statements (Continued)

31 December 2018

## 39. STATEMENT OF FINANCIAL POSITION OF THE COMPANY

Information about the statement of financial position of the Company is as follows:

	2018 <i>RMB'000</i>	2017 <i>RMB'000</i>
<b>NON-CURRENT ASSETS</b>		
Property, plant and equipment	6,280,881	6,050,398
Intangible assets	102,633	64,145
Equity investments designated at fair value through other comprehensive income	7,171	–
Available-for-sale investments	–	5,000
Investments in subsidiaries	687,810	562,834
Deferred tax assets	7,377	780
Other non-current assets	299,052	260,711
<b>Total non-current assets</b>	<b>7,384,924</b>	<b>6,943,868</b>
<b>CURRENT ASSETS</b>		
Inventories	46,399	34,571
Construction contracts	–	30,343
Contract assets	464,647	–
Trade and bills receivables	4,291,604	3,973,856
Prepayments, other receivables and other assets	900,527	919,827
Time deposits	35,000	–
Cash and cash equivalents	1,305,988	1,172,155
<b>Total current assets</b>	<b>7,044,165</b>	<b>6,130,752</b>
<b>CURRENT LIABILITIES</b>		
Trade and bills payables	2,498,281	2,836,226
Other payables and accruals	1,105,540	571,007
Interest-bearing bank borrowings	1,676,811	604,763
Income tax payable	23,491	31,997
<b>Total current liabilities</b>	<b>5,304,123</b>	<b>4,043,993</b>
<b>NET CURRENT ASSETS</b>	<b>1,740,042</b>	<b>2,086,759</b>
<b>TOTAL ASSETS LESS CURRENT LIABILITIES</b>	<b>9,124,966</b>	<b>9,030,627</b>
<b>NON-CURRENT LIABILITIES</b>		
Interest-bearing bank borrowings	2,199,097	2,447,353
Other non-current liabilities	18,800	6,765
<b>Total non-current liabilities</b>	<b>2,217,897</b>	<b>2,454,118</b>
<b>Net assets</b>	<b>6,907,069</b>	<b>6,576,509</b>
<b>EQUITY</b>		
Share capital	2,967,542	2,967,542
Reserves ( <i>note</i> )	3,939,527	3,608,967
<b>Total equity</b>	<b>6,907,069</b>	<b>6,576,509</b>

# Notes to Financial Statements (Continued)

31 December 2018

## 39. STATEMENT OF FINANCIAL POSITION OF THE COMPANY (CONTINUED)

Note:

A summary of the Company's reserves is as follows:

	<b>Capital reserve</b> <i>RMB'000</i>	<b>Statutory surplus reserve</b> <i>RMB'000</i>	<b>Fair value reserve</b> <i>RMB'000</i>	<b>Retained profits</b> <i>RMB'000</i>	<b>Total</b> <i>RMB'000</i>
As at 1 January 2017	1,299,413	163,538	–	1,371,837	2,834,788
Total comprehensive income	–	–	–	1,145,122	1,145,122
Appropriation to statutory surplus reserve	–	114,512	–	(114,512)	–
Dividends declared to owners of the parent	–	–	–	(370,943)	(370,943)
As at 31 December 2017	1,299,413	278,050	–	2,031,504	3,608,967
Effect of adoption IFRS 9	–	–	<b>(478)</b>	<b>(6,042)</b>	<b>(6,520)</b>
As at 1 January 2018	<b>1,299,413</b>	<b>278,050</b>	<b>(478)</b>	<b>2,025,462</b>	<b>3,602,447</b>
Total comprehensive income	–	–	<b>2,324</b>	<b>720,536</b>	<b>722,860</b>
Appropriation to statutory surplus reserve	–	<b>72,054</b>	–	<b>(72,054)</b>	–
Final 2017 dividends declared	–	–	–	<b>(385,780)</b>	<b>(385,780)</b>
As at 31 December 2018	<b>1,299,413</b>	<b>350,104</b>	<b>1,846</b>	<b>2,288,164</b>	<b>3,939,527</b>

## 40. APPROVAL OF THE FINANCIAL STATEMENTS

The financial statements were approved and authorised for issue by the board of directors on 22 March 2019.

# Definition and Glossary of Terms

“2018 AGM”	the annual general meeting of the Company for the year of 2018, to be held at 2:00 p.m. on Friday, 28 June 2019 at No. 120 Zizhuyuan Road, Haidian District, Beijing, the PRC
“Articles of Association”	the articles of association of the Company, as amended on 30 November 2018
“Board”	the board of Directors of the Company
“China Datang”	China Datang Corporation Ltd. (中國大唐集團有限公司), a state-owned enterprise established on 9 April 2003 in accordance with the PRC laws and the Controlling Shareholder and a promoter of the Company
“China Datang Corporation”	China Datang and its subsidiaries (excluding the Group)
“Company”, “our Company” or “Datang Environment”	Datang Environment Industry Group Co., Ltd. (大唐環境產業集團股份有限公司) was converted to a joint stock limited company on 26 June 2015, unless otherwise stated, including its predecessor China Datang Corporation Environment Technology Co., Ltd. (中國大唐集團環境技術有限公司) (a limited liability company established on 25 July 2011 pursuant to the PRC law and was renamed to Datang Technology Industry Co., Ltd. (大唐科技產業有限公司) in September 2013 and further to Datang Technology Industry Group Co., Ltd. (大唐科技產業集團有限公司) in December 2013)
“Controlling Shareholder”	has the meaning ascribed under the Listing Rules, and in this annual report, refers to the controlling shareholder of the Company, China Datang
“CSRC”	China Securities Regulatory Commission (中國證券監督管理委員會), a regulator responsible for supervising and regulating the Chinese securities market
“Datang Finance”	China Datang Finance Co., Ltd. (中國大唐集團財務有限公司), a company incorporated in the PRC with limited liability, and a non-wholly owned subsidiary of China Datang
“Datang Guiguan”	Guangxi Guiguan Electric Power Co., Ltd. (廣西桂冠電力股份有限公司), a joint stock limited company established in September 1992 in accordance with the PRC laws and a subsidiary of China Datang, which is listed on the Main Board of the Shanghai Stock Exchange (stock code: 600236)
“Datang Huayin”	Datang Huayin Electric Power Co., Ltd. (大唐華銀電力股份有限公司), a joint stock limited company established on 22 March 1993 in accordance with the PRC laws and a subsidiary of China Datang, which is listed on the Shanghai Stock Exchange (stock code: 600744)

## Definition and Glossary of Terms (Continued)

“Datang Renewable”	China Datang Corporation Renewable Power Co., Ltd. (中國大唐集團新能源股份有限公司), a joint stock limited company established on 23 September 2004 in accordance with the PRC laws and a subsidiary of China Datang, which is listed on the Main Board of the Stock Exchange (stock code: 1798)
“Director(s)”	the director(s) of the Company
“Domestic Share(s)”	ordinary shares in the Company’s share capital, with a nominal value of RMB1.00 each, which are subscribed for and paid up in RMB
“EMC”	a business model that the energy conservation companies provide energy-conservation services to customers according to the energy-conservation service contracts entered into with customers, and recover the investment and gain profit from the energy efficiency achieved upon the completion of energy conservation facilities refurbishment
“EPC”	engineering, procurement and construction, a common form of contracting arrangement whereby the contractor is commissioned by the customer to carry out works, such as design, procurement, construction and trial operations, either through the contractor’s own employees or by subcontracting part or all of the works, and be responsible for the quality, safety, timely delivery and cost of the project
“Group”, “our Group”, “we” or “us”	the Company and all or any of our subsidiaries (as the context so requires)
“H Share(s)”	overseas listed foreign shares in our ordinary share capital with a nominal value of RMB1.00 each, subscribed for and traded in Hong Kong dollars and listed and traded on the Stock Exchange
“Joint Company Secretary” or “Joint Company Secretaries”	joint company secretary/secretaries of the Company
“Latest Practicable Date”	22 April 2019, being the latest practicable date prior to the printing of this annual report for ascertaining certain information contained in this annual report
“Listing”	listing of our H Shares on the Main Board of the Stock Exchange
“Listing Rules”	Rules Governing the Listing of Securities on the Stock Exchange
“Model Code”	Model Code for Securities Transactions by Directors of Listed Issuers

## Definition and Glossary of Terms (Continued)

“Nanjing Environmental Protection”	Datang Nanjing Environmental Protection Technology Co., Ltd. (大唐南京環保科技有限責任公司), a limited liability company established on 14 December 2011 in accordance with the PRC laws and a subsidiary of our Company
“NSSF”	National Council for Social Security Fund of the PRC (中國全國社會保障基金理事會), an organization authorised by the State Council to be responsible for managing national social security fund
“PBOC” or “People’s Bank of China”	the People’s Bank of China
“PRC”	the People’s Republic of China, unless it has specifically specified, it excludes Hong Kong Special Administrative Region, Macau Special Administrative Region and Taiwan
“Prospectus”	the prospectus of the Company dated 3 November 2016 with respect to the listing of the Company on the Main Board of the Stock Exchange
“Reporting Period”	the year ended 31 December 2018
“RMB”	Renminbi, the current lawful currency of the PRC
“SASAC”	State-owned Assets Supervision and Administration Commission of the State Council of the PRC (中國國務院國有資產監督管理委員會), responsible for the management of state assets
“Senior Management”	senior management of the Company
“SFC”	the Securities and Futures Commission
“SFO”	the Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong), as amended, supplemented or otherwise modified from time to time
“Shareholder(s)”	holder(s) of the Share(s)
“Shares”	ordinary share(s) with nominal value of RMB1.00 each in the share capital of the Company, composed of the Domestic Shares and H Shares
“Stock Exchange”	The Stock Exchange of Hong Kong Limited
“Supervisor(s)” or “Supervisory Committee”	supervisor(s) or supervisory committee of the Company
“%”	per cent

# Corporate Information

## LEGAL NAME OF THE COMPANY

大唐環境產業集團股份有限公司

## ENGLISH NAME OF THE COMPANY

Datang Environment Industry Group Co., Ltd.\*

## DIRECTORS

### Non-executive Directors

Mr. Jin Yaohua (*Chairman*)  
Mr. Liu Chuandong  
Mr. Liu Guangming  
Mr. Li Yi (*Appointed in June 2018*)  
Mr. Deng Xiandong (*Re-designated in March 2019*)  
Mr. Liang Yongpan (*Resigned in June 2018*)

### Executive Directors

Mr. Shen Zhen (*Appointed in November 2018*)  
Mr. Lu Shengli (*Resigned in November 2018*)

### Independent non-executive Directors

Mr. Ye Xiang  
Mr. Mao Zhuanjian  
Mr. Gao Jiaxiang

## SUPERVISORS

Mr. Wang Yuanchun (*Chairman*)  
Mr. Miao Shihai (*Appointed in June 2018*)  
Mr. Chen Li (*Appointed in January 2018*)  
Mr. Liu Liming (*Resigned in June 2018*)  
Mr. Liu Jianxiang (*Resigned in January 2018*)

## LEGAL REPRESENTATIVE OF THE COMPANY

Mr. Jin Yaohua

## AUTHORIZED REPRESENTATIVES

Mr. Deng Xiandong  
Ms. Zhu Mei (*Appointed in August 2018*)  
Mr. Zeng Bing (*Resigned in August 2018*)

## JOINT COMPANY SECRETARIES

Ms. Zhu Mei (*Appointed in August 2018*)  
Ms. Wong Sau Ping (*ACIS; ACS*)  
Mr. Zeng Bing (*Resigned in August 2018*)

## COMMITTEES UNDER THE BOARD

### Audit Committee

Mr. Gao Jiaxiang (*Chairman*)  
Mr. Ye Xiang  
Mr. Liu Chuandong

### Nomination Committee

Mr. Jin Yaohua (*Chairman*)  
Mr. Mao Zhuanjian  
Mr. Gao Jiaxiang

### Remuneration and Evaluation Committee

Mr. Ye Xiang (*Chairman*)  
Mr. Mao Zhuanjian  
Mr. Deng Xiandong

### Strategy Committee

Mr. Deng Xiandong (*Chairman*)  
Mr. Li Yi (*Appointed in June 2018*)  
Mr. Liu Guangming  
Mr. Liang Yongpan (*Resigned in June 2018*)

### Investment Committee

Mr. Mao Zhuanjian (*Chairman*)  
Mr. Ye Xiang  
Mr. Deng Xiandong



## Corporate Information (Continued)

### REGISTERED OFFICE

No. 120 Zizhuyuan Road, Haidian District, Beijing, the PRC

### HEAD OFFICE IN THE PRC

No. 120 Zizhuyuan Road, Haidian District, Beijing, the PRC

### PRINCIPAL PLACE OF BUSINESS IN HONG KONG

31/F, Tower Two, Times Square, 1 Matheson Street, Causeway Bay, Hong Kong

### AUDITORS

Ernst & Young  
*Certified Public Accountants*  
22/F, CITIC Tower, 1 Tim Mei Avenue, Central, Hong Kong

Ernst & Young Hua Ming LLP  
16/F, Ernst & Young Tower, Oriental Plaza,  
No. 1 East Chang An Ave., Dong Cheng District, Beijing, the PRC

### LEGAL ADVISORS

#### As to Hong Kong law

Herbert Smith Freehills  
23/F, Gloucester Tower,  
15 Queen's Road Central, Hong Kong

#### As to the PRC law

Beijing Rainmaker Law Firm  
Room 422, Building A,  
Henghua International Business Center,  
26 Yuetan North Street, Xicheng District, Beijing

### PRINCIPAL BANKS

China Development Bank Corporation  
No. 16 Taipingqiao Avenue, Xicheng District,  
Beijing, the PRC

China Construction Bank Corporation Beijing  
Xuanwu Sub-branch  
No. 314 Guang'anmennei Street, Xicheng District,  
Beijing, the PRC

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Industrial and Commercial Bank of China Limited  
Beijing Haidian Sub-branch  
No. 100 Zhongguancun East Road, Haidian District,  
Beijing, the PRC

Agricultural Bank of China  
Beijing Xuanwu Sub-branch  
Tower D, Global Finance & News Center, No. 1A  
Xuanwumenwai Avenue, Xicheng District, Beijing,  
the PRC

Bank of Beijing Co., Ltd. Shangdi Sub-branch  
International Science and Technology Innovation  
Park, No. 1 Shangdi Xinxu Road, Haidian District,  
Beijing,  
the PRC

Postal Savings Bank of China  
Beijing Chaoyang District Dashanzi Branch  
No. 13 Jiuxianqiao Road, Chaoyang District, Beijing

Huaxia Bank  
Beijing Mentougou Branch  
1/F, Guotai Department Store, Xinqiao Street,  
Mentougou District, Beijing

### H SHARE REGISTRAR

Computershare Hong Kong Investor Services  
Limited  
Shops 1712–1716, 17/F, Hopewell Centre,  
183 Queen's Road East, Wanchai, Hong Kong

### STOCK ABBREVIATION AND STOCK CODE

DATANG ENVIRO (1272)

### COMPLIANCE ADVISOR

Haitong International Capital Limited  
22/F, Li Po Chun Chambers,  
189 Des Voeux Road Central,  
Hong Kong

### INVESTOR INQUIRIES

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Fax: +86 10 5838 9860  
Website: [www.dteg.com.cn](http://www.dteg.com.cn)  
E-mail: [ir@dteg.com.cn](mailto:ir@dteg.com.cn)

\* For identification purpose only