



**Technovator International Limited**  
(incorporated in Singapore with limited liability)

Stock Code: 1206

**A LEADING SMART  
ENERGY SAVING  
SERVICES PROVIDER**



ANNUAL REPORT **2018**



# CONTENTS

Corporate Information	2
Chairman's Statement	4
Five Year Financial Summary	8
Management Discussion and Analysis	9
Directors and Senior Management	17
Report of the Directors	24
Corporate Governance Report	38
Environmental, Social and Governance Report	49
Independent Auditor's Report	61
Consolidated Income Statement	67
Consolidated Income Statement and Other Comprehensive Income	68
Consolidated Statement of Financial Position	69
Consolidated Statement of Changes in Equity	71
Consolidated Cash Flow Statement	72
Notes to the Consolidated Financial Statements	74





# CORPORATE INFORMATION

## BOARD OF DIRECTORS

### Executive Directors

Mr. Zhao Xiaobo (趙曉波)  
Mr. Seah Han Leong (謝漢良)  
(resignation effective on 7 February 2018)  
Mr. Qin Xuzhong (秦緒忠) (*Chairman since 3 April 2018*)  
(appointed as executive director on 7 February 2018  
and as chairman on 3 April 2018)

### Non-executive Directors

Mr. Huang Yu (黃俞) (*Chairman up to 2 April 2018*)  
(resigned as Chairman on 3 April 2018)  
Mr. Liu Tianmin (劉天民)  
Mr. Wang Yinghu (王映澣)

### Independent Non-executive Directors

Mr. Fan Ren Da Anthony (范仁達)  
Mr. Chia Yew Boon (謝有文)  
Ms. Chen Hua (陳華)

## BOARD COMMITTEES

### Audit Committee

Ms. Chen Hua (*Chairman*)  
Mr. Chia Yew Boon  
Mr. Fan Ren Da Anthony

### Nomination Committee

Mr. Chia Yew Boon (*Chairman*)  
Mr. Fan Ren Da Anthony  
Mr. Huang Yu

### Remuneration Committee

Mr. Fan Ren Da Anthony (*Chairman*)  
Mr. Huang Yu (appointed on 16 March 2018)  
Mr. Chia Yew Boon  
Mr. Seah Han Leong (resignation effective on  
7 February 2018)

### Risk Management Committee

Mr. Fan Ren Da Anthony (*Chairman*)  
Mr. Huang Yu  
Ms. Chen Hua  
Mr. Chia Yew Boon  
Mr. Liu Tianmin  
Mr. Seah Han Leong (resignation effective on  
7 February 2018)  
Mr. Wang Yinghu  
Mr. Zhao Xiaobo  
Mr. Qin Xuzhong (秦緒忠) (appointed on 7 February 2018)

## JOINT COMPANY SECRETARIES

Mr. Leung Lok Wai  
Mr. Teo Meng Keong (passed away on 23 January 2018)  
Ms. Selena Leong Siew Tee (appointed on 18 July 2018)

## AUTHORISED REPRESENTATIVES

Mr. Zhao Xiaobo  
Mr. Seah Han Leong (resignation effective on  
7 February 2018)  
Mr. Qin Xuzhong (秦緒忠) (appointed on 7 February 2018)

## REGISTERED OFFICE

66 Tannery Lane  
#04-10/A  
Sindo Industrial Building  
Singapore 347805

## HEADQUARTERS AND PRINCIPAL PLACE OF BUSINESS IN SINGAPORE

66 Tannery Lane  
#04-10/10A  
Sindo Industrial Building  
Singapore 347805

## PRINCIPAL PLACE OF BUSINESS IN HONG KONG

15th Floor  
Allied Kajima Building  
138 Gloucester Road  
Wanchai, Hong Kong

## LEGAL ADVISER AS TO HONG KONG LAWS

Luk & Partners  
in Association with  
Morgan, Lewis & Bockius

## AUDITORS

KPMG  
KPMG LLP



## SINGAPORE PRINCIPAL SHARE REGISTRAR

Tricor Barbinder Share Registration Services  
80 Robinson Road  
#02-00  
Singapore 068898

## HONG KONG SHARE REGISTRAR

Tricor Investor Services Limited  
Level 22, Hopewell Centre  
183 Queen's Road East  
Hong Kong

## COMPANY WEBSITE

[www.technovator.com.sg](http://www.technovator.com.sg)

## PRINCIPAL BANKERS

Standard Chartered Bank  
DBS Bank  
The Hong Kong and Shanghai Banking Corporation Limited  
Agriculture Bank of China  
Bank of China  
Industrial and Commercial Bank of China  
China CITIC Bank  
China Construction Bank  
China Merchant Bank  
Bank of Beijing

## INVESTOR RELATIONS CONTACT

Ms. Hannah Zhang  
Tel: +86 10 8239 9391  
Email: [zhanghan@thtf.com.cn](mailto:zhanghan@thtf.com.cn)



# CHAIRMAN'S STATEMENT







## CHAIRMAN'S STATEMENT

Dear Honorable Shareholders,

On behalf of the board of directors and the management, I am pleased to present to the shareholders the report on the development and operating results of Technovator International Limited ("Technovator") and its subsidiaries (the "Group") for the year ended 31 December 2018.

### Co-existence of Challenges and Opportunities

The new normal brings new opportunities, and new opportunities are accompanied by new challenges. The year 2018 was a year full of both challenges and opportunities for Technovator. The macroeconomic restructuring has had certain impact on the Group's business growth and signing of projects, but at the same time, emerging industries and tertiary industries supported by various high and new technologies are showing strong momentum for development. Technovator keeps a foothold in scientific and technological innovation and green service. In 2018, we faced challenges with a smile, captured opportunities and kept abreast of transformation trend. Driven by the unwavering aspiration, we adjusted our pace, keeping the faith to move forward.

The annual business operation of the Group remained stable and its revenue continued to grow steadily, and at the same time, with resources invested to actively maintain customer resources, the Group achieved sound payment collection and cash flow, laying good foundation for future performance growth.

### Each business segment rose to challenges

During the year, under the relatively unstable macroeconomic environment, market demand fluctuated and competition in various industries has intensified, leading to the contraction in profit margins. At this point, the advantages of the core proprietary technologies have become a golden paddle for the enterprise to navigate through difficulties. Technovator roots our operations in Tsinghua and stems our businesses from Tsinghua Tongfang Co., Ltd (同方股份有限公司) ("THTF"). Over the years, we have been adhering to the principle of "technology-based". In 2018, we challenged the downturn market, fostered strong markets with strong technologies, and drove breakthroughs in technological research with our major projects, realizing the positive and proactive steps in boosting enterprise development through technological innovation and overcoming the challenges presented.

Owing to the innovation and upgrading of the core technologies, the three business segments of the Group achieved market growth. The Group's self-developed municipal rail transportation network command center took the lead again during the year and was successfully set up in Xi'an and Qingdao. The core technological development of the intelligent utility tunnel management platform is progressing with the projects. The information service platform of central heating management and dispatch has taken root in Taiyuan, creating a milestone for the service model of "One Network for One City". The upgraded Techcon EMS and the Techcon series building control products were successfully applied to hundreds of projects, becoming a credit point and revenue source for engineering projects.





In respect of our business segments, revenue from the smart transportation business has increased significantly during the year, but due to fluctuations in market demand, it has brought challenges to the expansion of the business. The strengthening of leading position in the existing advantageous areas is keeping pace with the exploration and realization of new areas and new operation models. Under the dual impact of the macro economy and the progress of revenue accounting for individual large projects, revenue from smart building and complex segment during the year has decreased. However, leveraging on its self-owned core technology and advantageous proprietary products in various sub-areas within the segment, profit margin was ensured, and the Group has foreseen new growth in the segment in 2019. The market demand for Energy Management Contract (EMC) projects in the smart energy segment fluctuated during the year, which led to a decline in the profit margin of the segment. However, our advantageous proprietary products and good gain in energy saving has allowed the business to ride through the current and restart at the end of the year.

### **Achieve a head-start with determination and efforts**

We are at a critical moment as we are facing more challenges when we ascend on our path towards the further development of the Company. The year 2018 is a year for Technovator to foster solidarity. In order to cope with the complex and ever-changing external environment, the Group actively optimizes the management system while strengthening the system restrictions, tilting advantageous

resources to each profit units, emphasizing on R&D and innovation, establishing talent training program, safeguarding profit margins, capturing cash flow, and improving quality and efficiency. It was ready to move further ahead. In the future, the Group will continue to strive to capture the opportunities in China's urban energy-saving market, and actively explore innovative models such as EMC, franchising, operation and maintenance services and the effective link-up of production, learning, research and utilization, with an aim to adjust the income structure and improve profit margins. While continuing to surpass the development of the peers in the PRC urban energy-saving industry, the Group ensures a long-term sustainable development and achieves a head-start.

Lastly, on behalf of the Board of Technovator, I would like to express my heartfelt gratitude to all the staff of the Group for their unremitting contribution, to all our customers and business partners for their tremendous support, and to all shareholders and investors for their support and trust. For the coming year, Technovator is willing to embrace reformation, grasp opportunities and turn crisis into opportunities. Through transformation, we are making great strides in development.

**Qin Xuzhong**  
*Chairman*

20 March 2019





## FIVE YEAR FINANCIAL SUMMARY

	2014	2015	2016	2017	2018
<b>(RMB'000)</b>					
<b>Consolidated income statement</b>					
<b>Continuing operations</b>					
Revenue	1,394,346	1,692,624	1,786,341	1,979,970	<b>2,036,588</b>
Cost of sales	(1,023,120)	(1,297,085)	(1,357,747)	(1,485,861)	<b>(1,560,590)</b>
Gross profit	371,226	395,539	428,594	494,109	<b>475,998</b>
Other revenue	24,675	58,475	40,162	38,329	<b>46,966</b>
Other net gain/(loss)	1,291	1,888	27,999	2,822	<b>(212)</b>
Selling and distribution costs	(67,960)	(70,269)	(66,183)	(81,949)	<b>(85,049)</b>
Administrative and other operating expenses	(109,003)	(144,193)	(131,647)	(133,432)	<b>(115,792)</b>
Financial expenses	(22,349)	(34,794)	(30,897)	(13,500)	<b>(10,828)</b>
Profit before taxation	197,880	206,646	268,028	306,379	<b>311,083</b>
Income tax	(41,803)	(21,351)	(36,303)	(43,488)	<b>(49,749)</b>
Profit for the year from continuing operations	156,077	185,295	231,725	262,891	<b>261,334</b>
<b>Discontinued operation</b>					
Profit for the year from a discontinued operation	40,967	599,318	–	–	–
<b>Profit for the year</b>	<b>197,044</b>	<b>784,613</b>	<b>231,725</b>	<b>262,891</b>	<b>261,334</b>
Equity shareholders of the Company	184,510	778,919	234,127	259,358	<b>261,165</b>
Non-controlling interests	12,534	5,694	(2,402)	3,533	<b>169</b>
Profit for the year	197,044	784,613	231,725	262,891	<b>261,334</b>
<b>Basic earnings per share (RMB)</b>	<b>0.2959</b>	<b>1.0680</b>	<b>0.2935</b>	<b>0.3269</b>	<b>0.3338</b>
<b>Diluted earnings per share (RMB)</b>	<b>0.2677</b>	<b>1.0092</b>	<b>0.2870</b>	<b>0.3269</b>	<b>0.3338</b>
Non-current assets	982,245	778,117	832,941	991,381	<b>1,124,917</b>
Current assets	1,933,958	3,187,256	2,996,669	3,234,312	<b>3,486,046</b>
Current liabilities	1,268,677	1,754,975	1,607,886	1,801,227	<b>1,915,927</b>
Net current assets	665,281	1,432,281	1,388,783	1,433,085	<b>1,570,119</b>
Total assets less current liabilities	1,647,526	2,210,398	2,221,724	2,424,466	<b>2,695,036</b>
Non-current liabilities	466,968	203,602	27,606	34,202	<b>37,620</b>
Total equity attributable to equity shareholders of the Company	1,150,642	1,998,710	2,188,427	2,372,140	<b>2,638,052</b>
Non-controlling interests	29,916	8,086	5,691	18,124	<b>19,364</b>
Total equity	1,180,558	2,006,796	2,194,118	2,390,264	<b>2,657,416</b>
<b>Net assets per share (RMB)</b>	<b>1.83</b>	<b>2.52</b>	<b>2.74</b>	<b>3.05</b>	<b>3.40</b>
<b>Financial ratio</b>					
Cost to income ratio	73.4%	76.6%	76.0%	75.0%	<b>76.6%</b>
Pre-tax profit margin	14.2%	12.2%	15.0%	15.5%	<b>15.3%</b>
Return on Equity	13.2%	9.2%	10.6%	11.0%	<b>9.8%</b>
Current ratio	1.5	1.8	1.9	1.8	<b>1.8</b>



# MANAGEMENT DISCUSSION AND ANALYSIS

## GENERAL

In 2018, China's economy has shifted from the stage of high-speed development to that of high-quality development, as the macro-economy continued to achieve steady progress throughout the year. However, under such policies as the "Supply-side Reform" and "Deleveraging", market demand fluctuated during the year, with many projects delaying the start of bidding process, which affected the business development of the Group to a certain extent. In such environment, the Group continued to adjust its pace, deepen its transformation on a comprehensive scale, and drive resource integration through technological development and based on demand. By doing so, the Group seeks to embrace fresh challenges, seize new opportunities and pursue long-term stable development amidst the new normality.

The Group recorded revenue of approximately RMB2.037 billion and a net profit of approximately RMB261 million for the full year, representing a year-on-year increase of 2.9% and a moderate decrease of 0.6% year on year, respectively. In tandem with stable business operation, the Group achieved positive collection of payments and cash flow, laying the foundation for future performance growth.

The Group's brand strength and influence continued to be recognized by all sectors of society during the year. In 2018, Technovator won the "Top Ten Building Automation Control Brands Award" in China for the sixth time, passed the CMMI international certification and obtained the qualification certificate by authoritative international software institutions, and earned a number of awards such as the "Most Influential Brand in the Chinese Intelligent Building Industry in 2018", the "7th Session of Top Ten Brands Influencing the Chinese Intelligent Building Electrical Industry" and the "Second Prize for Scientific and Technological Progress in Chongqing". While developing its business, the Group actively fulfilled its social responsibilities and engaged in various public welfare activities, such as donating books and money to schools in the western poverty-stricken areas in 2018. It also actively participated in various industry conferences and standards establishment, making contribution to the industry standardization.

## BUSINESS REVIEW

### Smart Transportation Business

Benefiting from its successful bids for quality projects and executed orders in the past two years, the Group recorded a major increase in revenue from its rail transit business for 2018, while maintaining stable profit margin of the segment. The urban subway construction market in China showed tentative signs of fierce competition during the year, but the comprehensive strength of the Group in the industry remained stable and the segment is expected to have ample market demand. Hence, the Group remains optimistic about the future development of the segment.

In terms of technological research and development, the Integrated Supervision and Control System (ISCS) for rail transit, an independent proprietary product of the Group, completed the standardized implementation and developed an upgraded version for overseas projects during the year, which better caters to the needs of the overseas projects and has been successfully applied. Our proprietary Platform Screen Door System completed its system iteration, optimization and upgrade during actual project application. During the year, the Group also hosted and participated in the research work of various sub-projects related to metro energy conservation under the "13th Five-Year" National Key R&D Program "Key Technologies and Demonstration of Building Energy Efficiency in Public Transportation Hubs", aiming to promote the sustainable development of the subway industry and support national ecological civilization and green development.

In respect of the core segment of subway intelligence, the Group has successfully carried out integrated supervision and control projects on subways in Changchun, Xi'an, Chongqing, Wuhan and Lahore of Pakistan during the year. It has also managed to enter into the project for Hangzhou-Linan Intercity Railway, and introduced its autonomous ISCS platform to the intercity railway. Furthermore, the Group made a successful tender on Hohhot Subway Line 2, to explore the new market in Northern China. At the same time, the Group succeeded in incorporating Xi'an and Qingdao into its business of command centers for urban rail transit networks, thus further enhancing its leading position in China's intelligent rail transit market.



### Smart Building and Complex Business

Impacted by the macro-economy, both China's infrastructure and real estate industries have seen slower investment growth in the recent years, which left a certain impact on the Group's smart building and complex business. Moreover, income of certain classified projects had been released in the previous period, and therefore revenue during the year decreased substantially, resulting in a decrease in segment revenue. However, leveraging on its robust core technology and advantageous proprietary products, the Group ensured a steady profit margin for the segment. As at the end of 2018, infrastructure investments started to pick up. The Group is expected to embrace a new round of growth in this segment in 2019.

In terms of technological research and development, the Group has fully upgraded the core controller of its proprietary Techcon 04 system during the year, aiming at improving the multi-protocol compatibility of the overall system, making it more suitable for future IoT application and delivering more convenience for remote operation and maintenance. The new product has been successfully applied in a number of projects. The development of the Intelligent Utility Tunnel Management platform went on smoothly. In addition, Technovator has been appointed as a deputy-director committee member of the Professional Committee for Swarm Intelligence Building Energy Conservation under China Energy Conservation Association (中國節能協會群智能建築節能專業委員會) during the year. "Swarm intelligence", as an innovative domestic proprietary technology for smart building platforms, is designed to break foreign technological barriers and achieve innovative development of Chinese building facilities. Therefore, the Group will continue to contribute to the R&D, promotion and application of the technology.

In its traditional advantage of smart building business, the Group proceeded with its key engineering projects such as Qingdao Hongdao International Convention and Exhibition Center (青島紅島國際會展中心) and the mega project for a first-tier city in Northern China. The upgraded Techcon Energy Management System (EMS) and the Techcon series building control products sustained its successful application in many places such as Chongqing, Tianjin, Sichuan and Zhejiang, providing high-quality energy management service for various large-scale integrated buildings. During the year, the segment focused on expanding its business in the Beijing-Tianjin-Hebei area, the Guangdong-Hong Kong-Macao Greater Bay Area and the starting points of the Belt Road Initiative. We also made successful tenders for a variety of complex high-end construction types such as large transportation hubs, TV stations, theaters and large-scale commercial complexes. The Group made good progress in the EMC business for the energy-saving transformation of buildings during the year. After securing multiple large-scale projects in the first half of the year, the Group won the bid for the Daqingxi Railway Station project in Heilongjiang Province at the end of the year, applied its proprietary energy-saving technologies and products to energy-saving and consumption reduction of buildings in various fields, and ensured sustainable operation and higher profit margin for the segment.

### Smart Energy Business

China continued to accelerate its urbanization drive in 2018, leading to sustained increase in the demand for urban central heating services that are of high quality, clean and efficient. The Group's smart energy business attained decent development during the year, with an extended trend in revenue growth. However, due to fluctuations in market demand, certain newly signed EMC projects have been postponed which led to structural changes in revenue and resulted in a temporary decline in the profit margin of the segment. The Group believes that its smart energy business will have adequate incremental and inventory markets and maintain long-term growth momentum in the future.

In terms of technological research and development, the Group managed to launch its proprietary heat exchange units for substantial temperature differentials with full operating conditions (全工況大溫差換熱機組), and successfully applied them to more than 50 heat exchange stations in Taiyuan before the heating season in 2018, with an additional heating area of two million square meters. At the same time, the information service platform of heating management and dispatch in Taiyuan developed during the year has been connected to 1,870 heating stations in the city, to improve the quality and efficiency of its heating management, as part of the efforts to deliver "One Network for One City" (一城一網) smart heating service that covers the entire supply chain. This is another milestone for the Group's smart energy service in Taiyuan City for the past 20 years, and a model of green energy services for more cities in the future.



With respect to business, the segment made good advancement in its smart heating projects, with smooth progress attained in the central heating projects for Taiyuan No. 2 Heating and Power Plant (太原二電), Ejin Horo Banner in Ordos and Wuwei. In addition to its various projects in Taiyuan, we entered into a number large-scale key projects in the year, including the renovation work for the heating system of Karamay, the long-distance pipeline network for heat supply between Huaneng Shangan Power Plant (華能上安電廠) and Luquan District of Shijiazhuang, and the smart central heating project by Huadian Lingwu Power Plant (華電靈武電廠) for Yinchuan City. The Group's regional and corporate collaborations has been intensified continuously. The segment maintained steady progress in its EMC business for central heating transformation. The projects for Xinjiang Tianfu and Linyi City Hengyuan Thermal were completed and entered into benefit sharing period during the year. Meanwhile, cooperation continues to expand on Wuhai project. The Group also won bids for projects including XinbingManchu Autonomous County under Fushun City of Liaoning Province during the year. The EMC model has become the key driving force in improving profit margin and realizing sustainable development.

## OUTLOOK

The new normal comes with new opportunities and challenges. Nowadays, China and the rest of the world have been experiencing speedy technological innovation and in-depth development in digitalization, network and intelligence. These elements have played an increasingly important role in facilitating economic and social development, facilitating the modernization drive, and addressing people's growing need for a good life. Technovator, as an industry leader in smart urban transportation, smart building and complex and smart energy, has adhered to technology as its foundation for years. Under the new economic environment, we will maintain our development strategy of "Intelligence + Energy Saving", give full play to our integrated advantages in all business areas, explore technological breakthrough and innovation, make steady progress in business, and drive the high-quality development of the industry through technology and service.

The Group will keep deepening its transformation strategy in the future. The Group will further optimize and reform our internal structure, enhance our synergy in business, management and innovation across different fields, streamline our hierarchy and improve our efficiency. In pursuit of stability and quality in business development, the Group will fully tap into the sharing and expandability of its proprietary core technology, and accurately grasp the opportunities in the energy-saving market and various favorable policies. The Group will never cease its quest for high-quality customers and partners, venture into new business models, strategically revitalize the energy-saving inventory market in various fields, and explore a more stable and efficient financial support system and service. The Group will continue to regard optimizing income structure, improving profit margin and realizing sustainable operation as its objectives. With its transformation, innovation and development, the Group will deliver outstanding performance to reward its shareholders for their years of support and contribute to the construction of new green cities.

## FINANCIAL REVIEW – CONTINUING OPERATIONS

### Revenue

In 2018, the Group continued to grow steadily under the macro environment of economic downturn and relatively sluggish subsectors. The Group recorded revenue of approximately RMB2,036.6 million for the year, representing a year-on-year increase of 2.9%. The accumulation of the smart transportation business preliminary projects was released during the period, which resulted in significant revenue growth in the segment. Meanwhile, the Company has been actively expanding various business models of the smart energy business, and achieved growth in segment revenue while committed to realizing the sustainability of the business. Influenced by the market environment, the revenue of the smart building and complex segment has recorded a decline.

**Revenue by business segment**

The table below sets forth the Group's revenue by business segments for the year indicated.

	2018		2017		Comparison
	Revenue (RMB'000)	% of revenue	Revenue (RMB'000)	% of revenue	
Smart transportation	702,766	35%	534,792	27%	31.4%
Smart building and complex	795,722	39%	918,161	46%	-13.3%
Smart energy	538,100	26%	527,017	27%	2.1%
<b>Total</b>	<b>2,036,588</b>	<b>100%</b>	1,979,970	100%	2.9%

**Smart transportation**

During the year, the Company's smart transportation business overcame the negative impact of the macro market environment and segment revenue continued to grow with a significant increase of 31.4% from approximately RMB534.8 million in 2017 to approximately RMB702.8 million in 2018. The Qingdao Subway Network Intelligence Center and Wuhan Caidian Line projects, which were signed by the Group at the beginning of the year, had a successful implementation and generated revenue in the second half of the year. Smart subway projects such as Changchun Subway Line No.2, Xi'an Subway Line No.4, Chongqing Subway Line No.10 and Wuhan Subway Line No.3 had made new progress during the period, further driving revenue growth of the smart transportation segment.

**Smart building and complex**

Revenue from the smart building and complex segment recorded a decrease of 13.3% from approximately RMB918.2 million in 2017 to approximately RMB795.7 million in 2018. During the year, the Group successfully secured smart projects such as the China Hongdao International Convention and Exhibition Center (中國•紅島國際會議展覽中心) and the "Integrated joint combat platform" in Kashi region and certain progress has been made with revenue achieved during the period. The Group continued to promote projects such as certain smart building project for a first-tier city in Northern China, as well as Yu Jia Pu Financial Zone (於家堡金融區) in Tianjin and Huadu Center (華都中心). However, due to the slowdown of infrastructure and real estate investment in recent years, competition within the industry has intensified. At the same time, since the revenue of the smart building project for a first-tier city in Northern China had been released during the previous period, revenue for the year decreased significantly. The combined effect of the macro and micro factors had caused a decrease in revenue during the period.

**Smart energy**

Revenue from the smart energy segment recorded an increase of 2.1% from approximately RMB527.0 million in 2017 to approximately RMB538.1 million in 2018. In line with the favorable national policy to promote the development of energy-saving industries, the Group continued to explore various business models, such as entrusted and franchised operations for heating networks during the year, striving for sustainable operations while generating revenue. The entire supply chain services project "One Network for One City" in TaiYuan, Ordos City Yijinhuoqi heating supply project (鄂爾多斯市伊金霍洛旗供熱項目) and Wuwei City central heating supply project (武威市城區集中供熱項目) signed in succession by the Company have made great progress during the period, which contributed to the segment revenue.

**Cost of sales**

Cost of sales increased by approximately 5.0% from approximately RMB1,485.9 million in 2017 to approximately RMB1,560.6 million in 2018. The increase in cost was mainly driven by revenue.

**Gross profit**

Gross profit decreased by 3.7% from approximately RMB494.1 million in 2017 to approximately RMB476.0 million in 2018. Gross profit margin decreased by 1.6 percentage points from approximately 25.0% in 2017 to approximately 23.4% in 2018. The drop in the overall gross profit margin was due to the macroeconomic environment being relatively weak and the narrowed market profit margins. On the other hand, as affected by fluctuations in market demand, the commencement of the bidding process had been delayed for many projects. Hence, the revenue for the construction period has not been recognised due to the EMC projects currently at hand were postponed to sign. As a result, the proportion of revenue from projects with high gross profit has relatively decreased as compared to the previous year which drove a decline in gross profit.

**Other revenue**

Other revenue increased by approximately RMB9.2 million from approximately RMB38.3 million in 2017 to approximately RMB47.5 million in 2018. This was mainly attributable to more EMC projects entering the sharing period from the smart energy segment that drove the significant increase in interest income.

**Other net gain/loss**

Other net gain/loss decreased by RMB3.0 million from revenue of approximately RMB2.8 million in 2017 to loss of approximately RMB0.2 million in 2018. Other net gain/loss presented a loss was mainly attributable to the decrease in the foreign currency assets held by the parent of the Group during the period, and correspondingly a decrease in exchange gains arising from exchange rate changes.

**Selling and distribution costs**

Selling and distribution costs in 2018 amounted to approximately RMB85.0 million, representing an increase of 3.8% over 2017. Selling and distribution costs accounted for 4.2% of revenue, which increased slightly as compared to 4.1% for 2017.

**Administrative and other operating expenses**

Administrative and other operating expenses decreased by 13.2% from approximately RMB133.4 million in 2017 to approximately RMB115.8 million in 2018. It was mainly attributable to the speed up recoverability of the Group and with an improvement in accounts receivable, the provision for bad debts during the year had significantly decreased as compared with the previous year. Administrative and other operating expenses accounted for 5.7% of revenue, a decreased of 1.0 percentage points as compared to 2017.

**Finance costs**

The Group's finance costs in 2018 were approximately RMB10.8 million. Due to an improvement in cash flow, relatively sufficient funds and the average loan balance decreased year-on-year, finance costs during the year decreased by approximately 20.0% as compared to approximately RMB13.5 million in 2017.

**Income tax**

Income tax increased by approximately 14.3% from approximately RMB43.5 million in 2017 to approximately RMB49.7 million in 2018. The effective tax rate increased from 14.2% in the previous year to 16.0% during the year. The increase in income tax and effective tax rate during the year was mainly attributable to the increase in income tax under the accounting-tax difference from final settlement.

**Profit for the year**

Profit for the year decreased by approximately 0.6%, from approximately RMB262.9 million for 2017 to approximately RMB261.3 million for 2018. Net profit margin slightly decreased by approximately 0.5 percentage points, from 13.3% to approximately 12.8%.

The basic earnings per share from continuing operations of the Group rose by 2.1 percentage points year-on-year to RMB0.3338 (2017: RMB0.3269). The earnings per share for the year and the previous year had not been diluted.

**Working capital**

The following table sets forth the Group's current assets and liabilities as at the dates indicated:

	<b>As at 31 December 2018 (RMB'000)</b>	As at 31 December 2017 (RMB'000)
Inventories	<b>792,027<sup>(Note 2)</sup></b>	375,525 <sup>(Note 1)</sup>
Trade and other receivables	<b>1,209,329</b>	1,438,201
Trade and other payables	<b>1,523,416</b>	1,512,632
Average inventories turnover days	<b>145<sup>(Note 2)</sup></b>	62 <sup>(Note 1)</sup>
Average trade receivables turnover days <sup>(Note 3)</sup>	<b>195</b>	212
Average trade payables turnover days <sup>(Note 3)</sup>	<b>279</b>	266

Note 1: Adoption of HKAS 11 and HKAS 18

Note 2: Adoption of HKFRS 15

Note 3: The calculation of turnover days excluded other receivables, other payables and related party amounts

The Group's inventories increased from approximately RMB375.5 million as at 31 December 2017 to approximately RMB792.0 million as at 31 December 2018. The change in the inventory reported as a result of amendments of HKFRSs adopted by the Company is the main factor leading to the growth of inventory in the current period. The inventory turnover days increased from approximately 62 days for 2017 to approximately 145 days for 2018. This increase in turnover days is mainly due to the change in financial reporting standards.

The Group's trade and other receivables decreased from approximately RMB1,438.2 million as at 31 December 2017 to approximately RMB1,209.3 million as at 31 December 2018. The average trade receivables turnover days declined from approximately 212 days for 2017 to 195 days for 2018. Benefiting from the Group's corresponding measures to faster collection of receivables, the scale of receivables and the turnover rate were improved.

The Group's trade and other payables amounted to approximately RMB1,523.4 million as at 31 December 2018, which was slightly increased by 0.7% as compared with approximately RMB1,512.6 million as at 31 December 2017. The Group's average trade payables turnover days increased from approximately 266 days for 2017 to approximately 279 days for 2018. The increase in trade receivables turnover days was due to the fact that the Group made full use of the credit period on favorable terms granted by the suppliers in accordance with the good credit record of the Group.



### Liquidity and financial resources

In 2018, the Group financed its operations primarily through cash flow from operations and cash balance on hand. As at 31 December 2018, the Group had approximately RMB689.0 million in cash and cash equivalents, which accounted for 25.9% of the Group's net assets (31 December 2017: cash and cash equivalents of approximately RMB521.3 million).

As at 31 December 2018, the Group's indebtedness consisted of short-term bank loans of approximately RMB170.3 million with an average annual interest rate of 4.7%, and a borrowing of approximately RMB69.5 million. This is a result of the Group's financial planning based on the financial costs in the market and normal working capital required.

As at 31 December 2018, the Group's debts were primarily bank loans and borrowings denominated in RMB. Cash and cash equivalents were primarily bank deposits and cash on hand denominated in RMB, USD, HKD, MOP and SGD, and deposits that are readily convertible into known amounts of cash.

As at 31 December 2018, the net cash of the Group was approximately RMB449.2 million (31 December 2017: net cash of approximately RMB279.0 million). Gearing ratio, defined as loans and borrowings divided by total assets, was approximately 5.2% (2017: approximately 5.7%).

### Pledge of assets

As at 31 December 2018, the Group had no pledge of assets.

### Contractual obligation and capital commitments

The following table sets forth the Group's non-cancellable operating lease commitments as at 31 December 2018 and 31 December 2017. The Group's operating lease commitments relate primarily to its leases of office spaces and workspaces.

	<b>As at 31 December 2018</b>	As at 31 December 2017
Within 1 year	<b>14,916</b>	15,758
After 1 year but within 5 years	<b>4,168</b>	8,327
	<b>19,084</b>	24,085

Capital commitments outstanding at 31 December 2018 and 31 December 2017 not provided for in the financial statements are as follows:

	<b>As at 31 December 2018</b>	As at 31 December 2017
Contracted for	<b>114,592</b>	131,121



### **Contingent liabilities**

As at 31 December 2018, the Group did not have any material contingent liabilities.

### **Off-balance sheet arrangements**

The Group did not have any special purpose entities that provided financing, liquidity, market risk or credit support to it or were engaged in leasing, hedging or research and development services with it. The Group did not enter into any derivative contracts that were indexed to the shareholders of the Group (the “**Shareholders**”) and classified as Shareholders’ equity, or that were not reflected in its financial statements. Moreover, the Group did not have any retained or contingent interest in such assets that were transferred to unconsolidated entities to provide credit, liquidity or market risk support for such entities.

### **Employee, training and development**

As at 31 December 2018, the Group had a total of 862 employees compared to the 779 employees as at 31 December 2017. Total staff costs for 2018 increased from approximately RMB128.4 million for 2017 to approximately RMB163.9 million.

As a matter of policy, employees of the Group are remunerated based on their performance, experience and prevailing industry practices, with all compensation policies and packages reviewed on a regular basis.

The Group provides training to its employees on a regular basis to keep them abreast of their knowledge in the Group’s products, technology developments and market conditions of its industry. The Group also provides additional training for each new product launch so to facilitate its frontline sales staff’s sales and orientation efforts. In addition, the Group’s senior management also participates in conferences and exhibitions to deepen their knowledge in the industry.

Mr. Huang Yu has retired as the chairman of the Board with effect from 3 April 2018, and will continue to be a non-executive Director of the Company. Mr. Qin Xuzhong has been appointed as the chairman of the Board with effect from the same date.

### **Material acquisitions and disposals**

For the year ended 31 December 2018, the Group did not make any material acquisition or disposal of subsidiaries or associates.

### **Significant investment**

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



## DIRECTORS AND SENIOR MANAGEMENT

### Executive Directors



**Mr. Zhao Xiaobo (趙曉波)**, aged 49, is an executive director of the Company (the “Director”) and chief executive officer of the Company, responsible for overall strategic planning and general management of the Group. He joined the Group in May 2005 and was appointed a Director on 26 May 2005 and was re-designated as an executive Director on 12 April 2011. Mr. Zhao received his Bachelor’s degree in Thermal Engineering from Tsinghua University in 1993 and Executive Master of Business Administration from Tsinghua University in 2005. Mr. Zhao was qualified as professor and researcher level senior engineer (教授研究員級高級工程師) in 2009.

Mr. Zhao joined Beijing Tsinghua Artificial Environmental Engineering Co. (清華人工環境工程公司), which was the predecessor of THTF (which is listed on the Shanghai Stock Exchange (stock code: 600100)) in 1993, and has worked in various departments within that company, responsible for R&D for product technology, software programming, solutions and sales, project management, as well as business strategies and planning. He had participated in many “intelligent building” projects, such as projects with the Beijing Hotel in the PRC and the Tehran Metro in Tehran, Iran. Mr. Zhao and such projects that he was involved in received various awards including the building low-carbon technology innovation award issued by Ministry of Science and Technology of the PRC (中華人民共和國科學技術部). Mr. Zhao was also previously an assistant to the president of THTF and a general manager of “Digital City Division” of THTF.



**Mr. Qin Xuzhong (秦緒忠)**, aged 46, was appointed as an executive Director of the Company on 7 February 2018. He was appointed as the chairman of the Board of the Company on 3 April 2018.

Mr. Qin has over 18 years of experience in engineering. He joined THTF (a company listed on Shanghai Stock Exchange (stock code: 600100)) in June 2000. He is currently the vice president of THTF, the general manager of Tongfang Smart Energy Saving Division\* (同方智慧節能產業本部) and the chairman of Tongfang Artificial Environment Co., Ltd\* (同方人工環境有限公司). He also held several positions in THTF, including the assistant of president in THTF, the standing vice general manager and project center general manager of Tongfang Digital City Division\* (同方數字城市產業本部). He obtained the doctor degree in heating, gas supply, ventilating and air conditioning engineering from Tsinghua University\* (清華大學) in June 2000, the executive master degree in business administration from Tsinghua University\* (清華大學) in March 2007. He was awarded as the professor senior engineer\* (教授級高級工程師) in Beijing in May 2012. He is also the standing vice president of China Construction Industry Association – Intelligent Building branch\* (中國建築業協會智能建築分會), the vice president of counsel of the Engineering Design Committee of Chinese Association of Automation\* (中國自動化學會工程設計委員會) and a member of Technical Committee of China District Heating Association\* (中國城鎮供熱協會技術委員會).



## Non-Executive Directors



**Mr. Huang Yu (黃俞)**, aged 50, was appointed as a non-executive Director and the chairman of the Board of the Company on 15 July 2016. Mr. Huang resigned as the chairman of Board of the Company on 3 April 2018.

He is also (i) the chairman of the board of Shenzhen Huakong Seg Co., Ltd. (深圳華控賽格股份有限公司), a company listed on the Shenzhen Stock Exchange (stock code: 000068), (ii) the senior vice president of Tsinghua Holdings Co., Ltd. (清華控股有限公司), (iii) an executive director of Shenzhen Aorongxin Investment Development Co., Ltd. (深圳市奧融信投資發展有限公司), (iv) the chairman of the supervisory committee of Penghua Fund Management Co., Ltd. (鵬華基金管理有限公司), (v) the vice chairman and chief executive officer of THTF, a company listed on the Shanghai Stock Exchange (stock code: 600100) and the controlling shareholder of the Company, (vi) an executive director and the chairman of the board of directors of Tongfang Kontafarma Holdings Limited (同方康泰產業集團有限公司), a company listed on the Stock Exchange (stock code: 1312), and (vii) a non-executive director and the chairman of the board of directors of Neo-Neon Holdings Limited (同方友友控股有限公司), a company listed on the Stock Exchange (stock code: 1868).

Mr. Huang holds a master degree in science from the University of Greenwich.



**Mr. Liu Tianmin (劉天民)**, aged 57, was appointed as a non-executive director on 8 September 2011. Mr. Liu had over eight years of experience in strategic investments and portfolio management. In March 2003, he was appointed as the vice president of THTF and general manager of “Digital TV System” Division, one of the divisions of THTF. Such division stresses on enhancing technological products and services on digital television network and Mr. Liu was responsible for strategic investment and management of extensive portfolio of companies with business covering information technology, new media, internet, broadcasting services, telecommunication and information technologies equipment such as Beijing Tongfang Ehero Co., Ltd (北京同方易豪科技有限公司), Beijing Tsinghua Tongfang Innovative Investment Co., Ltd. (北京同方創新投資有限公司), Know China International Holdings Limited (知網國際控股有限公司), Beijing Tongfang Legend Silicon Tech. Co., Ltd (北京同方凌訊科技有限公司) and Beijing Tongfang Gigamega Tech Co., Ltd (北京同方吉兆科技有限公司).

Mr. Liu left THTF in 2009 and subsequently joined SB China Venture Capital (軟銀中國創業投資有限公司) (“SBCVC”) as Managing Partner in November 2009. Established in 2000, SBCVC is a one of the top 10 venture capital firms in China as ranked by CNBWeekly in 2009. Mr. Liu’s previous experience in investing in technological fields has allowed him to manage SBCVC’s related funds.

Mr. Liu is also the independent non-executive director of Neo-Neon Holdings Limited (stock code: 1868). Neo-Neon Holdings Limited is listed on the main board of the Stock Exchange.



**Mr. Wang Yinghu (王映澍)**, aged 44, was appointed as a non-executive director of the Company in November 2015. Mr. Wang held various positions in THTF, a company listed on the Shanghai Stock Exchange (stock code: 600100) and a controlling shareholder of the Company, including the Chief Manager of Audit Department (審計部總經理), Chief Manager of Finance Department (財務部總經理), Vice Chief Accountant (副總會計師), Chief Accountant cum Chief Manager of Financial Management Center (總會計師兼財務管理中心總經理). Mr. Wang was transferred to Tsinghua Holdings Co., Ltd. (清華控股有限公司) in February 2018, and is currently the Director of Financial Management (財務管理總監) of the funding and finance center of that company. He has nearly 20 years of experience in the areas of accounting, audit and financial management, where he was employed by Shine Wing Certified Public Accountants\* (信永中和會計師事務所) and was a Senior Auditor (高級審計員), Senior Project Manager (高級項目經理) and Assistant Manager of Audit Department (審計部副經理). He is a Senior Accountant (高級會計師), a member of the Chinese Institute of Certified Public Accountants (CICPA) and Association of International Accountants (AAIA), and a Certified Internal Auditor (CIA). He graduated with a bachelor's degree in Transport Economics (運輸經濟) from Beijing Jiaotong University\* (北方交通大學, currently known as 北京交通大學).



## Independent Non-Executive Directors



**Mr. FAN Ren Da, Anthony (范仁達)**, aged 58, was appointed as an independent non-executive director of the Company in September 2011. Mr. Fan is currently the chairman and managing director of AsiaLink Capital Limited and also an independent non-executive director of Neo-Neon Holdings Limited (stock code: 1868), Uni-President China Holdings Ltd. (stock code: 220), Raymond Industrial Limited (stock code: 229), Shanghai Industrial Urban Development Group Limited (stock code: 563), Renhe Commercial Holdings Company Limited (stock code: 1387), Tenfu (Cayman) Holdings Ltd. (stock code: 6868), Citic Resources Holdings Limited (stock code: 1205), China Development Bank International Investment Limited (stock code: 1062) and Hong Kong Resources Holdings Company Limited (stock code: 2882), all of which are listed on the main board of the Stock Exchange. Mr. Fan is also the President of the Hong Kong Independent Non-Executive Director Association. Mr. Fan holds a master's degree in business administration from the United States.



**Mr. Chia Yew Boon (謝有文)**, aged 60, was appointed as an independent non-executive director of the Company on 8 September 2011. He received his Diploma of Chemical Engineering from Ecole Nationale Supérieure de Chimie de Strasbourg, France in July 1983.

Before entering the financial sector, Mr. Chia worked for the Economic Development Board of the Singapore government in various capacities from 1985 to 1990. He then spent eight years in equity research and corporate finance with regional investment banks from 1990 to 1998. From 1999 to 2005, Mr. Chia served as the senior vice president at GIC Special Investments Pte Ltd, a subsidiary of the Government of Singapore Investment Corporation. From 2005 to 2007, he was the chief executive officer of EasyCall International Ltd, a company involved in tertiary education in China and Australia, which was previously listed on the Australian Securities Exchange (stock code: EZY) and Singapore Stock Exchange, and a director of Strategic Planning at Boustead Singapore Limited, an engineering and information technology services company whose shares are listed and traded on the Singapore Stock Exchange (stock code: SGX: F9D). Since April 2007, he has been an independent private equity and venture capital consultant.

Mr Chia is also an Independent non-executive director of EC World Asset Management Pte Ltd, which manages EC World Real Estate Investment Trust; EC World REIT is listed on the Singapore Stock Exchange (stock code: SGX: BWCU) and has a diversified portfolio of income-producing real estate used primarily for e-commerce, supply chain management and logistics purposes, with an initial geographic focus on China.



**Ms. Chen Hua (陳華)**, aged 53, was appointed as an independent non-executive director on 8 September 2011. Ms. Chen received a Bachelor's degree in Science from New York University in 1988, and a Master's degree in Science with major in taxation from Fordham University in 1992. Since 2010, Ms. Chen is the operating partner and chief financial officer of SBCVC. Ms. Chen was a director in the asset management division of Credit Suisse from 25 September 2000 to 31 December 2009. From 1993 to 2000, Ms. Chen was a Tax Consulting Manager with Arthur Andersen LLP and Ernst & Young's financial service division, providing tax and structure consulting services to broker/dealers, hedge fund, private equity, venture fund and 40 Act mutual fund companies. Ms. Chen is a U.S. certified public accountant.



## Senior Management



**Mr. Zhao Xiaobo (趙曉波)**, please refer to the details set out above under the paragraph headed “Executive Directors”.



**Mr. Qin Xuzhong (秦緒忠)**, please refer to the details set out above under the paragraph headed “Executive Directors”.



**Mr. Leung Lok Wai (梁樂偉)**, aged 43, is the chief financial officer of the Group and a joint company secretary of the Company. He joined the Group in June 2010. Mr. Leung received his Bachelor's degree in accountancy from the Hong Kong Polytechnic University in December 1999. He is a member of Hong Kong Institute of Certified Public Accountants and a member of the Institute of Internal Auditors. He has over 15 years of experience in accounting, audit, due diligence and financial management, including transaction services in PricewaterhouseCoopers, group internal audit in Swire Group and audit assurance services in KPMG. Mr. Leung is also the company secretary of Neo-Neon Holdings Limited (stock code: 1868), which is listed on the main board of the Stock Exchange.

## JOINT COMPANY SECRETARIES

**Mr. Leung Lok Wai (梁樂偉)**, please refer to the details set out above under the paragraph headed "Senior Management".

Ms. Selena Leong Siew Tee (梁秀娣) was appointed as a joint company secretary of the Company on 18 July 2018 to satisfy the requirements of the Singapore Companies Act (Cap. 50) that the company secretary of a company incorporated in Singapore shall be residing locally in Singapore. Ms. Leong is an associate member of the Institute of Chartered Secretaries and Administrators (ICSA), United Kingdom. She is also an associate member and a practicing chartered secretary of the Chartered Secretaries Institute of Singapore. Ms. Leong has over 20 years of experience in corporate secretarial practice in Malaysia and Singapore. She is currently a senior manager of Tricor Singapore Pte. Ltd. Ms. Leong is a resident residing in Singapore.



# REPORT OF THE DIRECTORS

The directors of the Company (the “Directors”) have pleasure in presenting their report together with the audited financial statements for the year ended 31 December 2018.

## PRINCIPAL ACTIVITIES

The Group is principally engaged in integrated urban energy saving services. Its business covers three major segments including smart transportation, smart building and complex and smart energy, providing the customers with smart energy management products, solutions and integrated services throughout their full life cycles.

## BUSINESS REVIEW

The business review of the Group as at 31 December 2018 is set out under the section headed “Management Discussion and Analysis” of this annual report on pages 9 to 11.

## ANALYSIS OF FINANCIAL KEY PERFORMANCE INDICATORS

For details of the key financial performance indicators to the performance the Group’s business, please refer to “Five Year Financial Summary” on page 8 of this annual report.

## SUBSIDIARIES

Details of the principal subsidiaries of the Group as at 31 December 2018 are set out in note 14 to the financial statements.

## FINANCIAL STATEMENTS

The profit of the Group for the year ended 31 December 2018 and the state of the Company’s and the Group’s affairs as at that date are set out in the financial statements on pages 61 to 148 of this annual report.

## DIVIDENDS

During 2018, the Company has not declared any dividend in respect of the financial year ended 31 December 2017. The Board does not recommend any final dividend for the year ended 31 December 2018.

## RESERVES

Details of movements in reserves of the Company and the Group are set out in note 24 to the financial statements and in the consolidated statement of changes in equity, respectively.

## DISTRIBUTABLE RESERVES OF THE COMPANY

As at 31 December 2018, the aggregate amount of reserves available for distribution to equity shareholders of the Company was RMB437,261,000 (2017: RMB441,050,000). Details of the reserves of the Company as at 31 December 2018 are set out in note 24 to the financial statements.

## CHARITABLE DONATIONS

Charitable donations made by the Group during the year ended 31 December 2018 amounted to approximately RMB50,000 (2017: RMB84,120).

## PROPERTY, PLANT AND EQUIPMENT

Movements in property, plant and equipment of the Group for the year ended 31 December 2018 are set out in note 11 to the financial statements.



## SHARE CAPITAL

Details of the movements in share capital of the Company during the year ended 31 December 2018 are set out in note 24 to the financial statements.

## DIRECTORS

The Directors during the year ended 31 December 2018 and as at the date of this report were:

### Executive Directors

Mr. Zhao Xiaobo (趙曉波)

Mr. Seah Han Leong (謝漢良) (resignation effective on 7 February 2018)

Mr. Qin Xuzhong (秦緒忠) (*Chairman*) (appointed as executive director on 7 February 2018 and as Chairman on 3 April 2018)

### Non-executive Directors

Mr. Huang Yu (黃俞) (*Chairman*) (resigned as Chairman on 3 April 2018)

Mr. Liu Tianmin (劉天民)

Mr. Wang Yinghu (王映滸)

### Independent Non-executive Directors

Mr. Fan Ren Da Anthony (范仁達)

Mr. Chia Yew Boon (謝有文)

Ms. Chen Hua (陳華)

The Company has received annual confirmations of independence from each of the existing independent non-executive Directors in accordance with Rule 3.13 of the Rules Governing the Listing of Securities on the Stock Exchange (the “Listing Rules”). The Company considers that all the independent non-executive Directors are independent in accordance with the Listing Rules.

Each of the executive, non-executive and independent non-executive Directors on the Board other than Mr. Huang Yu, Mr. Wang Yinghu and Mr. Qin Xuzhong had entered into a service contract with the Company for an initial term of one year, commencing from 27 October 2011. Mr. Huang Yu has entered into a service contract with the Company for an initial term of one year commencing from 15 July 2016. Mr. Wang Yinghu has entered into a service contract with the Company for an initial term of one year commencing from 16 November 2015. Mr. Qin Xuzhong has entered into a service contract with the Company for an initial term of one year commencing from 7 February 2018. Each of the service contracts are automatically renewed upon expiration and until terminated by either party upon a three-month prior written notice.

In accordance with article 104 of the Company’s Constitution (the “Constitution”), Mr. Zhao Xiaobo and Mr. Chia Yew Boon will retire from the Board by rotation at the forthcoming annual general meeting and, being eligible, offer themselves for re-election.

No Director proposed for re-election at the forthcoming annual general meeting has an unexpired service contract which is not determinable by the Company or any of its subsidiaries within one year without payment of compensation, other than statutory compensation.

## DIRECTORS’ AND SENIOR MANAGEMENT’S BIOGRAPHIES

Biographical details of the Directors and senior management are set out on pages 17 to 23 of this annual report.



## DIRECTORS' INTERESTS IN CONTRACTS

Save as disclosed below, there was no contract of significance to which the Company, its holding company, or any of its subsidiaries was a party, and in which a Director of the Company had a material interest, whether directly or indirectly, subsisted during or at the end of the year ended 31 December 2018.

## DIRECTORS' AND CHIEF EXECUTIVE'S INTERESTS AND SHORT POSITIONS IN SHARES, UNDERLYING SHARES AND DEBENTURES

As at 31 December 2018, the Directors and the chief executive of the Company and their respective associates had the following interests or short positions in the Shares, underlying shares of the Company (the "Shares") and debentures of the Company and its associated corporations (within the meaning of Part XV of the Securities and Futures Ordinance (Chapter 571 of Laws of Hong Kong) (the "SFO")) which have been notified to the Company and the Stock Exchange pursuant to Division 7 and 8 of Part XV of the SFO, including interests and short positions which the Directors and the chief executive of the Company are taken and deemed to have under such provisions of the SFO, or which are required to be and are recorded in the register required to be kept under Section 352 of the SFO or as otherwise notified to the Company and the Stock Exchange pursuant to the Model Code for Securities Transactions of Directors of Listed Issuers (the "Model Code"):

### Long Positions in the Company

Name of Director and chief executive	Capacity/Nature of interest	Number of Shares interested	Approximate percentage of interest in the issued share capital of the Company <sup>(2)</sup>
Mr. Zhao Xiaobo	Beneficial owner	8,728,000	1.12%
Mr. Leung Lok Wai	Beneficial owner	1,070,000	0.14%
Mr. Liu Tianmin	Beneficial owner	500,000 <sup>(1)</sup>	0.06%
Mr. Fan Ren Da Anthony	Beneficial owner	500,000 <sup>(1)</sup>	0.06%
Mr. Chia Yew Boon	Beneficial owner	500,000 <sup>(1)</sup>	0.06%
Ms. Chen Hua	Beneficial owner	500,000 <sup>(1)</sup>	0.06%

Notes:

- (1) Shares subject to options under the Share Option Scheme.
- (2) The percentage of interest in the issued share capital of the Company is calculated based on the number of issued Shares without taking into account Shares which may be allotted and issued to all grantees upon their after full exercise of the options under the Share Option Scheme.



Save as disclosed above, as at 31 December 2018, none of the Directors or the chief executive of the Company had or was deemed to have any interests or short position in the Shares, underlying Shares or debentures of the Company and its associated corporations (within the meaning of Part XV of the SFO), which had been recorded in the register maintained by the Company pursuant to section 352 of the SFO or which had been notified to the Company and the Stock Exchange pursuant to the Model Code.

At no time was the Company, its holding company, or any of its subsidiaries a party to any arrangements to enable the Directors and the chief executive of the Company (including their spouse and children under 18 years of age) to hold any interest or short positions in the Shares, underlying Shares or debentures of the Company or its associated corporations (within the meaning of Part XV of the SFO).

## SHARE OPTION SCHEME

The shareholders of the Company have approved and the Company has adopted a share option scheme (the "Share Option Scheme") on 18 May 2012 to grant options to Eligible Persons.

Pursuant to an ordinary resolution adopted in general meeting by the shareholders of the Company on 14 July 2014, the maximum number of Shares which may be issued upon exercise of all options to be granted under the Share Option Scheme and any other schemes of the Group shall not in aggregate exceed 10% of the Shares in issue as at 14 July 2014, being the date of the extraordinary general meeting at which the said ordinary resolution was adopted, i.e. 52,152,000 Shares. No option may be granted to any participant of the Share Option Scheme such that the total number of Shares issued and to be issued upon exercise of the options granted and to be granted to that person in any 12-month period up to the date of the latest grant exceeds 1% of the Company's shares in issue from time to time.

The Board may, at its absolute discretion, offer options to subscribe for such number of Shares in accordance with the terms set out in the Share Option Scheme to the Eligible Persons. "Eligible Person(s)" means (a) any executive director of, manager of, or other employee holding an executive, managerial, supervisory or similar position in any member of the Group (collectively, the "Executives"), any full-time or part-time employee, or a person for the time being seconded to work full-time or part-time for any member of the Group, or of an Eligible Entity; (b) a director or proposed director (including an independent non-executive director) of any member of the Group or of an Eligible Entity; (c) direct or indirect shareholder of any member of the Group; (d) a supplier of goods or services to any member of the Group or of an Eligible Entity; (e) a customer, consultant, business or joint venture partner, franchisee, contractor, agent or representative of any member of the Group or of an Eligible Entity; (f) person or entity that provides design, research, development or other support or any advisory, consultancy, professional or other services to any member of the Group or of an Eligible Entity; and (g) an associate of any of the persons referred to in paragraphs (a) to (f) above. "Eligible Entity" means any substantial shareholders or holding companies (as defined in the Companies Ordinance) of the Company and any of their respective subsidiaries, and any entity (including associated company) in which any substantial shareholders or holding companies of the Company or any of their respective subsidiaries holds any equity interest.

An option may be exercised in accordance with the terms of the Share Option Scheme at any time during a period as determined by the Board and not exceeding 10 years from the date of the grant. There is no minimum period for which an option must be held before it can be exercised. Participants of the Share Option Scheme are required to pay the Company HK\$1.0 upon acceptance of the grant on or before 28 days after the offer date. The exercise price of the options is determined by the Board in its absolute discretion and shall not be less than whichever is the highest of:

- (a) the closing price of a Share as stated in the Stock Exchange's daily quotations sheets on the offer date; and
- (b) the average closing price of a Share as stated in the Stock Exchange's daily quotation sheets for the five business days immediately preceding the offer date.

The Share Option Scheme shall be valid and effective for a period of 10 years from the date of adoption of the Share Option Scheme by the shareholders of the Company, 18 May 2012, after which no further options will be granted or offered. As at the date of this report, the remaining life of the Share Option Scheme is approximately 3 years and one month.



Details of such share options granted under the Share Option Scheme as at 31 December 2018 are as follows:

Name	Date of Grant <sup>(1)</sup>	Exercise price per Share	Exercise period <sup>(2),(3),(4)</sup>	Number of shares issuable under the share options			
				Outstanding as at 1 January 2018	Exercised during the year ended 31 December 2018 <sup>(5)</sup>	Forfeit during the year ended 31 December 2018	Outstanding as at 31 December 2018
<b>Director, chief executive or substantial shareholder</b>							
Zhao Xiaobo	5 September 2013	HK\$3.06	5 September 2015–4 September 2018	1,000,000	–	(1,000,000)	–
Qin Xuzhong	5 September 2013	HK\$3.06	5 September 2015–4 September 2018	4,000,000	–	(4,000,000)	–
Liu Tianmin	15 August 2014	HK\$3.83	15 August 2014–14 August 2019	500,000	–	–	500,000
Fan Ren Da Anthony	15 August 2014	HK\$3.83	15 August 2014–14 August 2019	500,000	–	–	500,000
Chia Yew Boon	15 August 2014	HK\$3.83	15 August 2014–14 August 2019	500,000	–	–	500,000
Chen Hua	15 August 2014	HK\$3.83	15 August 2014–14 August 2019	500,000	–	–	500,000
Leung Lok Wai	5 September 2013	HK\$3.06	5 September 2015–4 September 2018	600,000	–	(600,000)	–
<b>Other Employees</b>							
In aggregate	5 September 2013	HK\$3.06	5 September 2015–4 September 2018	10,350,000	–	(10,350,000)	–
	15 August 2014	HK\$3.83	15 August 2016–14 August 2019	4,300,000	–	–	4,300,000
	17 October 2014	HK\$3.444	17 October 2015–16 October 2019	5,400,000	–	(400,000)	5,000,000
<b>Suppliers of goods or services</b>							
In aggregate	5 September 2013	HK\$3.06	5 September 2015–4 September 2018	1,800,000	–	(1,800,000)	–
<b>Others</b>							
In aggregate	5 September 2013	HK\$3.06	5 September 2015–4 September 2018	26,650,000	–	(26,650,000)	–
	15 August 2014	HK\$3.83	15 August 2014–14 August 2019	1,000,000	–	–	1,000,000
	17 October 2014	HK\$3.444	17 October 2015–16 October 2019	1,100,000	–	–	1,100,000
Total				58,200,000	–	(44,800,000)	13,400,000



Notes:

- (1) The closing price per Share immediately before 5 September 2013, 15 August 2014 and 17 October 2014 (the dates on which the share options were granted) was HK\$3.06, HK\$3.83 and HK\$3.34, respectively.
- (2) Share options granted under the Share Option Scheme on 5 September 2013 (each a "Date of Grant A") shall have an Option Period (as defined in the Share Option Scheme) of 5 years from the respective Date of Grant A and conditional upon, the achievement of certain performance targets as set out in the offer letter, shall vest in the grantees in accordance with the timetable below (for this purpose, the date or each such date on which the Options are to vest being hereinafter referred to as a "Vesting Date A"):

- (i) For the Directors, chief executive or substantial shareholder, other employees and others:

Vesting Date A	Percentage of options to vest
Any time after the second anniversary of the Date of Grant A	50% of the total number of options granted
Any time after the third anniversary of the Date of Grant A	50% of the total number of options granted

- (ii) For suppliers of goods or services:

Vesting Date A	Percentage of options to vest
Any time after the second anniversary of the Date of Grant A	100% of the total number of options granted

- (3) Share options granted under the Share Option Scheme on 15 August 2014 (each a "Date of Grant B") shall have an Option Period (as defined in the Share Option Scheme) of 5 years from the respective Date of Grant B and conditional upon, the achievement of certain performance targets as set out in the offer letter, shall vest in the grantees in accordance with the timetable below (for this purpose, the date or each such date on which the Options are to vest being hereinafter referred to as a "Vesting Date B"):

- (i) For the Directors:

Vesting Date B	Percentage of options to vest
On the Date of Grant B	100% of the total number of options granted

- (ii) For other employees:

Vesting Date B	Percentage of options to vest
On the date of the second anniversary of the Date of Grant B	100% of the total number of options granted

- (4) Share options granted under the Share Option Scheme on 17 October 2014 (each a "Date of Grant C") shall have an Option Period (as defined in the Share Option Scheme) of 5 years from the respective Date of Grant C and conditional upon, the achievement of certain performance targets as set out in the offer letter, shall vest in the grantees in accordance with the timetable below (for this purpose, the date or each such date on which the Options are to vest being hereinafter referred to as a "Vesting Date C"):

Vesting Date C	Percentage of options to vest
On the date of the first anniversary of the Date of Grant C	50% of the total number of options granted
On the date of the second anniversary of the Date of Grant C	50% of the total number of options granted

No option was granted under the Share Option Scheme during the year ended 31 December 2018. Save as disclosed above, no options granted under the Share Option Scheme were exercised, lapsed or cancelled during the year ended 31 December 2018.

As at the date of this report, the total number of Shares available for issue under the outstanding options granted under the Share Option Scheme is 13,400,000 Shares, representing approximately 1.71% of the issued share capital of the Company.



## ARRANGEMENT FOR DIRECTORS TO PURCHASE SHARES OR DEBENTURES

Save as disclosed in “Share Option Schemes” above, at no time during the year were rights to acquire benefits by means of the acquisition of shares in or debentures of the Company granted to any Director of the Company or their respective spouses or minor children, or were such rights exercised by them, or was the Company, its holding company or any of its subsidiaries a party to any arrangements to enable the Directors of the Company to acquire benefits by means of the acquisition of shares in, or debt securities (including debentures) of the Company or any other body corporate.

## SUBSTANTIAL SHAREHOLDERS’ INTERESTS AND SHORT POSITIONS IN SHARES AND UNDERLYING SHARES

So far as is known to any Director or chief executive of the Company, as at 31 December 2018, the persons or corporations (other than Director or chief executive of the Company) who had interest or short positions in the Shares and underlying Shares of the Company which were required to be disclosed to the Company under the provisions of Division 2 and 3 of Part XV of the SFO, or which were recorded in the register required to be kept under section 336 of the SFO were as follows:

Name of Shareholders	Capacity/Nature of interest	Number of Shares interested	Approximate percentage of interest in the issued share capital of the Company
Tsinghua Tongfang Co., Ltd (同方股份有限公司)	Beneficial owner	92,000,000	11.76%
	Interest in a controlled corporation <sup>(1)</sup>	194,300,142	24.84%
Resuccess Investments Limited	Beneficial owner	194,300,142	24.84%

Note: Tsinghua Tongfang Co., Ltd (同方股份有限公司) (“THTF”) is the sole shareholder of Resuccess Investments Limited and hence is deemed to be interested in all the Shares held by Resuccess Investments Limited.

Save as disclosed above, as at 31 December 2018, the Directors and the chief executive of the Company are not aware of any other person or corporation having an interest or short position in the Shares and underlying Shares of the Company which would require to be disclosed to the Company under the provisions of Division 2 and 3 of Part XV of the SFO, or which were recorded in the register required to be kept by the Company pursuant to Section 336 of the SFO.



## PURCHASE, SALE OR REDEMPTION OF THE COMPANY'S LISTED SECURITIES

During the year, the Company repurchased a total of 400,000 ordinary shares of the Company on the Stock Exchange. For the year ended 31 December 2018, the Company has cancelled a total of 650,000 Shares, of which, 250,000 Share were repurchased in December 2017, and the remaining 400,000 Shares were repurchased during the year ended 31 December 2018. As at 31 December 2018, all Shares repurchased during the year ended 31 December 2018 were cancelled. The Directors considered that by making these share repurchases would further enhance the shareholders' value. The details of the repurchases were disclosed as follows:

Month of Repurchase	Aggregate number of shares repurchased	Repurchase price		Total consideration paid <sup>(Note)</sup> HK\$
		Highest HK\$	Lowest HK\$	
January 2018	400,000	2.45	2.22	938,120
Total	400,000			938,120

Note: The total consideration paid excludes expenses paid for the Share repurchase.

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

## CONNECTED TRANSACTION

During the year, there was no connected transaction required to be reported.

## CONTINUING CONNECTED TRANSACTIONS

### Connected persons

- (a) Tsinghua Tongfang Co., Ltd. (i.e. THTF): THTF is a controlling shareholder of the Company (the "Controlling Shareholder") and is therefore a connected person of the Company under Rule 14A.11(1) of the Listing Rules.

### The continuing connected transactions

#### 1. Sales of products to THTF from Technovator Beijing and such other parties procured by Technovator Beijing and agreed by THTF

On 1 November 2017, Technovator Beijing and THTF entered into a sales agreement (the "2017 Sales Agreement") to terminate the 2016 sales agreement entered into between the parties on 30 May 2016 and to enter into a new term among the parties, pursuant to which Technovator Beijing agreed to sell or procure such other parties agreed by THTF, including members of the Group, to sell building and municipal infrastructure construction related products, equipment and services, which include control security systems, and fire alarm systems to THTF, its subsidiaries and their respective associates and affiliates (the "Tongfang Group") for a term of three years from 1 January 2017 to 31 December 2019 and annual caps for the years ending 31 December 2017, 2018 and 2019, being RMB120.0 million, RMB280.0 million and RMB300.0 million, respectively. The price at which the Group sells such products to the Tongfang Group will be determined based on normal commercial terms after arm's length negotiation.

For the year ended 31 December 2018, the Group sold products to Tongfang Group in the amount of approximately RMB65.7 million, which was within the approved cap of RMB280.0 million.



The Group entered into the 2017 Sales Agreement to accommodate the business needs of the Group's non-core businesses. Further details of the 2017 Sales Agreement are set out in the announcement of the Company dated 1 November 2017 and the circular of the Company dated 6 December 2017.

**2. *Purchase of raw materials from THTF and such other parties procured by THTF and agreed by Technovator Beijing to Technovator Beijing***

On 1 November 2017, Technovator Beijing and THTF entered into a purchase agreement (the "2017 Purchase Agreement") to terminate the 2016 sales agreement entered into between the parties on 30 May 2016 and to commence a new term for the transactions, pursuant to which THTF agreed to sell or procure such other parties agreed by Technovator Beijing, including members of the Tongfang Group, to sell wiring, lighting and other products, equipment and systems and services relating to the Group's business of energy management, energy saving and environmental protection to the Group for a term of three years from 1 January 2017 to 31 December 2019 and annual caps for the years ending 31 December 2017, 2018 and 2019, being RMB150.0 million, RMB280.0 million and RMB300.0 million, respectively. The price of such goods and services supplied by the Tongfang Group to the Group will be determined based on normal and commercial terms after arm's length negotiation, with reference to the prevailing market price of similar goods and services at the time of a particular transaction, and in any event no less favorable to the Group than those offered by independent third party suppliers to the Group.

For the year ended 31 December 2018, the Group purchased such raw materials from Tongfang Group in the amount of approximately RMB99.3 million, which was within the approved cap of RMB280.0 million.

The Group entered into the 2017 Purchase Agreement to accommodate the business needs of the Group's non-core businesses. Further details of the 2017 Purchase Agreement are set out in the announcement of the Company dated 1 November 2017 and the circular of the Company dated 6 December 2017.

**3. *Provide to or receive from the Tongfang Group miscellaneous products and services***

On 1 November 2017, Technovator Beijing and THTF entered into a master agreement (the "2017 Master Agreement") to terminate the 2016 master agreement entered into between the parties on 30 May 2016 and to commence a new term for the transactions, pursuant to which the Group may provide to or receive from the Tongfang Group miscellaneous products and services for a period of three years from 1 January 2017 to 31 December 2019 as may be required to satisfy the operational needs of the Group/Tongfang Group from time to time in the ordinary course of business of the Group with annual caps for the category of "provision of miscellaneous products and services by the Group to the Tongfang Group" for the years ending 31 December 2017, 2018 and 2019, being RMB30.0 million, RMB40.0 million and RMB50.0 million, respectively, and annual caps for the category of "receipt of miscellaneous products and services by the Group from the Tongfang Group" for the years ending 31 December 2017, 2018 and 2019, being RMB30.0 million, RMB40.0 million and RMB50.0 million, respectively.

Pursuant to the 2017 Master Agreement, the miscellaneous products and services provided by the Group to the Tongfang Group mainly include (i) rental services (including leasing of land and premises); (ii) research and development services and products (including technology licensing); (iii) the use of trademark license; and (iv) sharing of general administration and management support services but exclude any transactions contemplated under the Sales Agreement.

The miscellaneous products and services provided by the Tongfang Group to the Group mainly include (i) rental services (including leasing of land, premises, machinery and equipment); (ii) research and development services and products (including technology licensing); (iii) the use of trademark license; and (iv) sharing of general administration and management support services, other than the transactions contemplated under the four existing trademark license agreements all dated 28 May 2010 entered into between Technovator Beijing and THTF, as amended on 4 August 2011, and any transactions contemplated under the 2017 Purchase Agreement.

The prices at which the Group or the Tongfang Group provides such services will be based on the pricing mechanism as disclosed in the announcement of the Company dated 1 November 2017.

For the year ended 31 December 2018, the miscellaneous products and services provided by the Tongfang Group to the Group amounted to approximately RMB25.9 million, which was within the approved cap of RMB40.0 million.



The Group entered into the Master Agreement to accommodate the business needs of the Group's non-core businesses. Further details of the Master Agreement are set out in the announcement of the Company dated 1 November 2017.

**4. *The business arrangements with THTF with respect to the intelligent rail transit, building and urban heating network businesses***

Pursuant to the business arrangement agreement dated 1 November 2017, THTF and Tongfang Technovator International (Beijing) Co., Ltd. and Tongfang Energy Saving Engineering Technology Co., Ltd., wholly-owned subsidiaries of the Company agreed to engage in certain business arrangements (the "2017 Business Arrangements" in relation to Intelligent rail transit, building and urban heating network businesses (the "Intelligent Businesses")), including (i) for the projects which THTF continues to use its name for entering into such contracts and/or projects of the Intelligent Businesses that the legal rights and obligations of which cannot be directly transferred to the Group (the "Nominee Projects"), THTF will assign, sub-contract, delegate or in any other way the parties may mutually agree so that the Group will assume these contracts. The Group will be responsible for performing the work required by the Nominee Projects and entitled to the income from the Nominee Projects. To the extent that the legal rights of THTF under the contracts in respect of any Nominee Projects have not been assigned to the Group, or for any other reasons THTF receives any payment from the customers of any Nominee Projects for any income generated, THTF is required to pay such amount to the Group no later than the balance sheet date of the month in which such amount is received without any additional compensation. THTF undertakes to assist the Group to take up the Nominee Projects without any additional compensation, including but not limited to providing any necessary information to the Group and handling the relevant project completion and settlement procedures as necessary; (ii) If debtors of the Nominee Projects settle debts by paying THTF, THTF is required to pay such amount to the Group no later than the balance sheet date of the month in which such amount is received without any additional compensation; (iii) THTF to act as the party to supply contracts to procure materials or services from third party suppliers for the Nominee Projects, THTF will procure the necessary materials and services from the relevant third party suppliers for the Group upon instruction by the Group, and the Group is required to reimburse THTF for the amount paid by THTF; (iv) THTF agrees that the debts which are part of the liabilities of the Nominee Projects that have not been assumed by the Group as the consent from the creditors has not been obtained, THTF will continue to satisfy such debts. In the event that THTF is required to settle such debt with the relevant third party creditors, the Group is required to reimburse THTF for such amount no later than the balance sheet date of the month in which such amount is paid by THTF; and (v) THTF will continue to support the Group on the continual development and expansion of the Intelligent Businesses. THTF agrees to provide support and cooperation for the Group for the Intelligent Businesses upon reasonable request from the Group including cooperating with the Group to develop new projects and business opportunities in respect of these businesses, being a party to the relevant agreements to facilitate the Group's conducting of the these businesses if necessary, and providing the required information and assistance to complete the relevant projects, in manners similar to the support to be provided by THTF as set out in paragraphs (i) to (iv) above. Such new sales, procurement or project contracts if to be signed by THTF, all of the terms shall be negotiated by the Group. By virtue of the arrangements as set out above, to the extent that any Nominee Projects are not capable to be assigned to the Group, THTF will continue to act as the party to such agreements, and will transfer any payments it receives from the relevant customers of the these businesses to the Group without any additional charges. As for new project or contracts that it is necessary or desirable for THTF to be a contracting party, THTF may cooperate with the Group in the performance of such contracts for the relevant customers, and transfer any payments it receives from the relevant customers of the Intelligent Businesses to the Group without any additional charges.

The prices for new sales contracts to which THTF will act as the party will be negotiated with third party customers based on the price range as indicated by the prices charged by the relevant Intelligent Business for at least two projects with scope of services undertaken and/or for past sale of products by the relevant Intelligent Business which most closely resembles the requirements of the new sales contract concerned within the past 12 months. The prices for the purchase of material and/or services to be procured under supply contracts subject to the 2017 Business Arrangements will be negotiated with third party suppliers based on the price range as indicated by the prices paid by the relevant Intelligent Business in at least two purchases for similar material and/or services within the past 12 months.

The annual caps of payments to be transferred by THTF to the Group pursuant to the 2017 Business Arrangements for each of the years ended 31 December 2017, 2018 and 2019 are RMB1,200.0 million, RMB1,500.0 million and RMB1,600.0 million, respectively. For the year ended 31 December 2018, the payments transferred by THTF to the Group pursuant to the 2017 Business Arrangements amounted to approximately RMB1,378.8 million, which was within the approved annual cap of RMB1,500.0 million.



The annual caps of payments to be transferred by the Group to THTF pursuant to the 2017 Business Arrangements for each of the years ending 31 December 2017, 2018 and 2019 are RMB1,000.0 million, RMB1,250.0 million and RMB1,300.0 million, respectively. For the year ended 31 December 2018, the payments transferred by the Group to THTF pursuant to the 2017 Business Arrangements amounted to approximately RMB954.0 million, which was within the approved annual cap of RMB1,250.0 million.

Please refer to the announcement of the Company dated 1 November 2017 and the circular of the Company dated 6 December 2017 for further details of the 2017 Business Arrangements.

The independent non-executive directors of the Company have reviewed these continuing connected transactions and confirmed that such transactions were:

- (i) entered into in the ordinary and usual course of business of the Group;
- (ii) conducted either on normal commercial terms or, if there are not sufficient comparable transactions to judge whether they are on normal commercial terms, on terms no less favourable to the Group than terms available to or from Independent Third Parties; and
- (iii) in accordance with the relevant agreement governing them on terms that are fair and reasonable and in the interests of the Shareholders as a whole.

The Company's auditor, KPMG, was engaged to report on the Group's continuing connected transactions in accordance with Hong Kong Standard on Assurance Engagements 3000 (Revised) "Assurance Engagements Other Than Audits or Reviews of Historical Financial Information" and with reference to Practice Note 740 "Auditor's Letter on Continuing Connected Transactions under the Hong Kong Listing Rules" issued by the Hong Kong Institute of Certified Public Accountants. The auditor, KPMG, has issued his unqualified letter containing his findings and conclusions in respect of the continuing connected transactions disclosed by the Group in this annual report in accordance with Rule 14A.56 of the Listing Rules. A copy of the auditor's letter has been provided by the Company to The Stock Exchange.

Details of the significant related party transactions undertaken in the normal course of business are provided under note 27 to the financial statements. None of these related party transactions constitute connected transaction or continuing connected transactions as defined under the Listing Rules that is required to be disclosed, except for those described in the sections headed "Connected Transaction" and "Continuing Connected Transactions" in this report, in respect of which the disclosure requirements in accordance with Chapter 14A of the Listing Rules have been complied with.

## CONTRACTS WITH CONTROLLING SHAREHOLDERS

Other than the continuing connected transactions set out above, no contract of significance has been entered into between the Company or any of its subsidiaries and the Controlling Shareholders during the year ended 31 December 2018.

## NON-COMPETE UNDERTAKINGS

Each of the Controlling Shareholders has confirmed to the Company of his/her compliance with the non-compete undertakings provided to the Company under the Deed of Non-compete (as defined in the prospectus of the Company dated 17 October 2011). The independent non-executive Directors of the Company have reviewed the status of compliance and confirmed that all the undertakings under the Deed of Non-compete have been complied with by the Controlling Shareholders.



## DIRECTORS' INTEREST IN COMPETING BUSINESS

None of the Directors is or was interested in any business apart from the Group's business, that competes or competed or is or was likely to compete, either directly or indirectly, with the Group's business at any time during the year ended 31 December 2018 and up to and including the date of this annual report.

## MANAGEMENT CONTRACTS

No contracts concerning the management and administration of the whole or any substantial part of the business of the Company were entered into or existed during the year.

## PRE-EMPTIVE RIGHTS

There are no provisions for pre-emptive rights under the Company's constitution (the "Constitution") or the laws of Singapore where the Company is incorporated applicable to the Company.

## EMOLUMENT POLICY

The Group's emolument policies are based on the merit, qualifications and competence of individual employees and are reviewed by the remuneration committee periodically.

The emoluments of the Directors are recommended by the remuneration committee of the Company and are decided by the Board, having regard to the Group's operating results, individual performance and comparable market statistics.

The Group has adopted the Share Option Scheme to motivate and reward its Directors and eligible employees. Further information on the Share Option Scheme these schemes are set out in the paragraph headed "Share Option Scheme" above and note 21 to the financial statements.

None of the Directors waived any emoluments during the year.

## PENSION SCHEME

The employees of the Group's subsidiaries which operate in China are required to participate in defined contribution central pension schemes operated by the local municipal government. The subsidiaries of the Group are required to contribute certain percentages of its payroll costs to the central pension schemes. The contributions are charged to the consolidated income statements as they become payable in accordance with the rules of the central pension scheme. No forfeited contribution is available to reduce the contribution payable in future years.

For the Group's subsidiaries in countries other than the PRC, the Group pays contributions to publicly or privately administered pension insurance plans on a mandatory, contractual or voluntary basis. The Group has no further payment obligations once the contributions have been paid. The contributions are recognised as employee benefit expenses when they are due. Prepaid contributions are recognised as an asset to the extent that a cash refund or a reduction in the future payments is available.

The Group has no other material obligation for the payment of pension benefits beyond the annual contributions described above.

## PERMITTED INDEMNITY PROVISION

Since 1 January 2018 up to and including 31 December 2018, the Company had taken out appropriate corporate liability insurance for its Directors. As of the date of this report, such corporate liability insurance remained effective.



## MAJOR CUSTOMERS AND SUPPLIERS

Aggregate sales attributable to the Group's largest and five largest customers for the year ended 31 December 2018 were 7.9% (2017: 16.1%) and 31.8% (2017: 34.7%) of the Group's total sales respectively.

Aggregate purchases attributable to the Group's largest and five largest suppliers for the year ended 31 December 2018 were 2.1% (2017: 5.5%) and 8.6% (2017: 11.8%) of the Group's total purchases respectively.

At no time during the year ended 31 December 2018, did a Director, his/her close associate(s) or a Shareholder, which to the knowledge of the Director owns more than 5% of the Company's share capital, have an interest in any of the Group's five largest customers and suppliers.

## AUDITORS

KPMG was the external auditor of the Company in Hong Kong and KPMG LLP was the registered auditor of the Company in Singapore during the year ended 31 December 2018, whose term will end at the conclusion of the forthcoming annual general meeting of the Company. During the three preceding financial years, there was no change in the external auditor in Hong Kong and the auditor in Singapore of the Company.

## SUFFICIENCY OF PUBLIC FLOAT

Based on information that is publicly available to the Company and within the knowledge of the Directors as at the date of this annual report, the Company has maintained the prescribed public float of not less than 25% of the Company's issued Shares as required under the Listing Rules for the year ended 31 December 2018.

## BANK LOANS

Details of bank loans of the Group as at 31 December 2018 are set out in note 20 to the financial statements.

## PRINCIPAL RISKS AND UNCERTAINTIES

A number of factors may affect the results and business operations of the Group, some of which are inherent to energy saving industry and some are from external sources. For further details, please refer to the section headed "Management Discussion and Analysis".

## RELATIONSHIPS WITH EMPLOYEES, SUPPLIERS AND CUSTOMERS

For details of relationship with the employees, customers and suppliers, please refer to the paragraphs headed "Emolument Policy" and "Major Customers and Suppliers" in this section.



## ENVIRONMENTAL POLICIES AND PERFORMANCE

Our Group is specialized in providing energy saving and environmentally-friendly products. The Group has obtained the ISO14001 Environmental Management System Certification of the China Quality Certification Centre, which is an international standard on the operation of an environmental management system. In addition, we are committed to building an environmentally-friendly corporation that pays close attention to conserving energy. We strive to operate in compliance with the relevant environmental regulations and rules. During the year ended 31 December 2018 and up to the date of this report, the Group does not have any violation of relevant environmental regulations and rules which gives rise to significant impact to the Group's development, performance and businesses.

See also the "Environmental Society and Governance Report – Environment" in this report for more information.

## COMPLIANCE WITH LAWS AND REGULATIONS

Our Group shall comply with relevant laws and regulations in the jurisdictions where the Group operates. The Group's operations are mainly carried out by the Company's subsidiaries in the PRC. Accordingly, our operations shall comply with relevant laws and regulations in the PRC. During the year ended 31 December 2018 and up to the date of this report, the Group does not have any violation of relevant laws and regulations which gives rise to significant impact to the Group's development, performance and businesses.

## FIVE-YEAR SUMMARY

A summary of the results and of the assets and liabilities of the Group for the last five financial years is set out on page 8 of this annual report.

On behalf of the Board

**Qin Xuzhong**  
*Chairman*

20 March 2019



# CORPORATE GOVERNANCE REPORT

Good corporate governance is conducive to enhancing overall performance and accountability and is essential in modern corporate administration. The Board of Directors continuously observes the principles of good corporate governance in the interests of Shareholders and devotes considerable effort to identifying and formalizing best practice.

## COMPLIANCE WITH CORPORATE GOVERNANCE CODE

Throughout the year ended 31 December 2018, the Company complied with all code provisions and, where appropriate, adopted the recommended best practices as set out in the Corporate Governance Code in Appendix 14 to the Main Board Listing Rules (the “Corporate Governance Code”) except for deviation regarding the number of board meetings held, the details of which have been disclosed in the paragraph headed “Meeting” below in this report.

Between 7 February 2018 and 15 March 2018, due to Mr. Seah Han Leong’s resignation as an executive director and a member of the remuneration committee of the Company (the “Remuneration Committee”), the number of members of the Remuneration Committee fell below the minimum number prescribed under the Terms of Reference of the Remuneration Committee adopted by the Board (the “Terms of Reference”). With the appointment of Mr. Huang Yu as member of the Remuneration Committee by the Board on 16 March 2018, the number of members of the Remuneration Committee was restored to three in compliance with the Terms of Reference. Hence, the Company has complied with Rule 3.27 of the Listing Rules by meeting the requirements under the Terms of Reference within three months after falling below the minimum number of members prescribed under the Terms of Reference.

Set out below is a detailed discussion of the corporate governance practices adopted and observed by our Company during the year.

## MODEL CODE

The Company has also adopted the Model Code set out in Appendix 10 of the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (“Listing Rules”) effective since its adoption by the Company from 8 September 2011 and throughout the year ended 31 December 2018 as its code of conduct regarding securities transactions by the Directors. Having made specific enquiry with all Directors, all Directors confirmed that they have complied with the required standard set out in the Model Code and its code of conduct regarding directors’ securities transactions during the year ended 31 December 2018.

## BOARD OF DIRECTORS

### Board Composition

As at 31 December 2018 and the date of this annual report, the Board comprised two executive Directors, three non-executive Directors and three independent non-executive Directors:

#### Executive Directors

Mr. Zhao Xiaobo (趙曉波)

Mr. Seah Han Leong (謝漢良) (resignation effective on 7 February 2018)

Mr. Qin Xuzhong (秦緒忠) (*Chairman*) (appointed as executive director on 7 February 2018 and as the chairman on 3 April 2018)

#### Non-executive Directors

Mr. Huang Yu (黃俞) (*Chairman*) (resigned as a Chairman on 3 April 2018)

Mr. Liu Tianmin (劉天民)

Mr. Wang Yinghu (王映滸)

#### Independent Non-executive Directors

Mr. Fan Ren Da Anthony (范仁達)

Mr. Chia Yew Boon (謝有文)

Ms. Chen Hua (陳華)



The Board takes overall responsibility to oversee all major matters of the Group, including the formulation and approval of all policy matters, overall strategic development of the Group, monitoring and controlling the Group's operation and financial performance, internal control and risk management systems. The Directors have to make decisions objectively in the interests of the Company.

The day-to-day management, administration and operation of the Group are delegated to the chief executive officer and the senior management of the Company. The delegated functions and work tasks are periodically reviewed. Approvals have to be obtained from the Board prior to any significant transactions entered into by the aforesaid officers.

The Board is well balanced with the Directors having sound industry knowledge, extensive corporate and strategic planning experience and/or expertise relevant to the business of the Group. The executive Directors and independent non-executive Directors bring a variety of experience and expertise to the Company. Biographical information of the Directors are set out in the section headed "Directors and Senior Management" of this annual report. To the best knowledge of the Company, there is no financial, business or family relationship among the members of the Board.

The Company has subscribed appropriate and sufficient insurance coverage on Directors' liabilities in respect of legal actions taken against Directors arising out of corporate activities.

Board meetings were held from time to time to discuss the business strategies of the Group; monitor financial and operational performance; approve the annual and interim results of the Group; and discuss the corporate governance functions of the Board.

## CONTINUOUS PROFESSIONAL DEVELOPMENT FOR DIRECTORS

The Directors have been informed of the requirement under Code Provision A.6.5 of the Corporate Governance Code regarding continuous professional development. According to the records maintained by the Company, the current Directors received the following training by attending briefings, seminars, conferences or reading materials with an emphasis on the roles, functions and duties of a director of a listed company in compliance with the requirement of the Corporate Governance Code on continuous professional development during the year ended 31 December 2018:

Name of Director	Corporate Governance/ Updates on Laws, Rules and Regulations		Accounting/Financial/ Management or Other Professional Skills	
	Read materials	Attended seminars briefings	Read materials	Attended seminars briefings
<b>Executive Directors</b>				
Mr. Zhao Xiaobo	✓	✓	✓	✓
Mr. Qin Xuzhong	✓	✓	✓	✓
<b>Non-executive Directors</b>				
Mr. Huang Yu	✓	✓	✓	✓
Mr. Liu Tianmin	✓	✓	✓	✓
Mr. Wang Yinghu	✓	✓	✓	✓
<b>Independent non-executive Directors</b>				
Mr. Fan Ren Da Anthony	✓	✓	✓	✓
Mr. Chia Yew Boon	✓	✓	✓	✓
Ms. Chen Hua	✓	✓	✓	✓



## CHAIRMAN AND CHIEF EXECUTIVE OFFICER

The roles of chairman and the chief executive officer are segregated. Mr. Qin Xuzhong is the chairman of the Company since 3 April 2018, and Mr. Huang Yu was the chairman of the Company up to 2 April 2018. Mr. Zhao Xiaobo is the chief executive officer of the Company. The chairman is responsible in leading the Board in forming the Group's strategies and policies and for organizing the business of the Board, ensuring its effectiveness and setting its agenda. The chief executive officer is directly in charge of the daily operations of the Group and is accountable to the Board for the financial and operational performance of the Group.

## INDEPENDENT NON-EXECUTIVE DIRECTORS

Independent non-executive Directors have played a significant role in the Board by bringing their independent judgment at the Board meetings and scrutinizing the Group's performance. Their views carry significant weight in the Board's decisions. In particular, they bring an impartial view to bear on issues of the Group's strategy, performance and control. All independent non-executive Directors possess extensive academic, professional and industry expertise and management experience and have provided their professional advice to the Board. The independent non-executive Directors provide independent advice on the Group's business strategy, results and management so that all interests of Shareholders can be taken into account, and the interests of the Company and its Shareholders can be protected.

The Board has three independent non-executive Directors with two of them, Mr. Fan Ren Da Anthony and Ms. Chen Hua, possessing appropriate professional qualifications or accounting or related financial management expertise in compliance with the requirements set out in Rules 3.10(1) and (2) and 3.10A of the Listing Rules.

The Company has received annual confirmations of independence from each of the existing independent non-executive Directors in accordance with Rule 3.13 of the Listing Rules. Based on the content of such confirmations, the Company considers that all the independent non-executive Directors are independent in accordance with the Listing Rules.

## BOARD DIVERSITY POLICY

The Board adopted a board diversity policy (the "Board Diversity Policy") in August 2013. The Company recognises and embraces the benefits of diversity of Board members. While all Board appointments will continue to be made on a merit basis, the Company will ensure that the Board has a balance of skills, experience and diversity of perspectives appropriate to the needs of the Company's business. Selection of candidates will be based on a range of diversity perspectives, including but not limited to gender, age, cultural and educational background, experience (professional or otherwise), skills and knowledge.



## MEETINGS

The Board meets regularly either in person or through electronic means of communications. The number of the Board meetings and general meetings held and the attendance of each Director at these meetings for the year ended 31 December 2018 are set out as follows:

	Board Meeting	General Meeting
No. of meetings held	3	1
<b>No. of meetings attended</b>		
<b>Executive Directors</b>		
Mr. Zhao Xiaobo	3	1
Mr. Seah Han Leong (resignation effective on 7 February 2018)	0	0
Mr. Qin Xuzhong (appointed as executive director on 7 February 2018)	3	0
<b>Non-executive Directors</b>		
Mr. Huang Yu	3	0
Mr. Liu Tianmin	3	0
Mr. Wang Yinghu	3	0
<b>Independent non-executive Directors</b>		
Mr. Fan Ren Da Anthony	3	1
Mr. Chia Yew Boon	3	0
Ms. Chen Hua	3	0

Notes:

<sup>(1)</sup> Since 1 January 2018 and up to Mr. Seah's resignation, no Board meeting and no general meeting of the Company were held.

<sup>(2)</sup> Since Mr. Qin's appointment and up to 31 December 2018, a total of three Board meetings and one general meeting of the Company were held.

The Company has continued its best effort to fulfill the Code Provision, including but not limit to A.1.1 of the Corporate Governance Code which provides that the Board should meet regularly and board meetings should be held at least four times a year at approximately quarterly intervals. During the year, three Board meetings were held for approving the Group's interim financial performance, annual financial performance and another regulatory matters advised by the Group's legal advisor which required the Board decision. In addition to the three Board meetings held by the Company, the Directors met regularly during the year to discuss the overall operation and strategy of the Group. However, there are neither regulatory matters nor other important decisions which was advised and the Board consider to resolve by way of Board meeting.

All Directors are provided with relevant materials relating to the matters brought before the meetings. They have separate and independent access to the senior management and the joint company secretaries of the Company at all times and may seek independent professional advice at the Company's expense. All Directors have the opportunity to include matters in the agenda for Board meetings. Notices of at least 14 days of Board meetings are given to the Directors and Board procedures complied with the Constitution, as well as relevant rules and regulations.



## JOINT COMPANY SECRETARIES

At the beginning of the year, Mr. Leung Lok Wai and Mr. Teo Meng Keong were the joint company secretaries of the Company. On 23 January 2018, Mr. Teo Meng Keong, one of joint company secretaries of the Company passed away. Ms. Selena Leong Siew Tee was appointed to fill the casual vacancy from the passing of Mr. Teo Meng Keong as a joint company secretary of the Company to satisfy the requirement under the Companies Act (Cap. 50) of Singapore with effect from 18 July 2018. Mr. Leung Lok Wai and Ms. Selena Leong Siew Tee are currently the joint company secretaries of the Company. Details of the biographies of Mr. Leung Lok Wai and Ms. Selena Leong Siew Tee (collectively, the “Joint Company Secretaries”) are set out in the section headed “Directors and Senior Management” of the annual report of which this corporate governance report forms part. The Joint Company Secretaries have been informed of the requirements under Rule 3.29 of the Listing Rules. Each of the Joint Company Secretaries has confirmed that he/she had attained no less than 15 hours of relevant professional training during the year ended 31 December 2018.

## APPOINTMENTS, RE-ELECTION AND REMOVAL OF DIRECTORS

Each of the executive Directors, non-executive Directors and independent non-executive Directors of the Company has entered into a service contract with the Company for a specific term, and is subject to retirement by rotation and re-election at an annual general meeting at least once every three years in accordance with the Constitution. The Constitution provide that any Director appointed by the Board to fill a casual vacancy in the Board or as an addition to the existing Board shall hold office only until the next following annual general meeting of the Company and shall then be eligible for re-election. For more details of the service contract of each of the Directors, please refer to the section headed “Report of the Directors” of this annual report.

## TERM OF APPOINTMENT OF NON-EXECUTIVE DIRECTORS

Each of the non-executive Directors and independent non-executive Directors other than Mr. Huang Yu and Mr. Wang Yinghu had entered into a service contract with the Company for an initial term of one year commencing from 27 October 2011. Mr. Huang Yu has entered into a service contract with the Company for an initial term of one year commencing from 15 July 2016. Mr. Wang Yinghu has entered into a service contract with the Company for an initial term of one year commencing from 16 November 2015.

All the service contracts of non-executive Directors and independent non-executive Directors are automatically renewed upon expiration and may be terminated by either party upon a three-month prior written notice.

## BOARD COMMITTEES

The Board has established (i) audit committee, (ii) remuneration committee; (iii) nomination committee; and (iv) risk management committee, with defined terms of reference. The terms of reference of the board committees which explain their respective roles and the authority delegated to them by the Board are available on the websites of the Company and the Stock Exchange. The Board committees are provided with sufficient resources to discharge their duties and, upon reasonable request, are able to seek independent professional advice and other assistance in appropriate circumstances, at the Company’s expenses.

## AUDIT COMMITTEE

The Company established an audit committee pursuant to a resolution of the Directors passed on 8 September 2011 in compliance with Rule 3.21 and Rule 3.22 of the Listing Rules. The primary duties of the audit committee are to make recommendation to the Board on the appointment and removal of external auditors, review the financial statements and material advice in respect of financial reporting, and oversee the internal control procedures of the Company. The audit committee currently consists of three members, namely, Ms. Chen Hua, Mr. Fan Ren Da Anthony and Mr. Chia Yew Boon, all of whom are independent non-executive Directors. Ms. Chen Hua, who has appropriate professional qualifications and experience in accounting matters, is the chairman of the audit committee. None of the members of the Audit Committee is a former partner of the existing external auditors of the Company.



During the year ended 31 December 2018, the Audit Committee mainly performed following duties:

- reviewed the Group’s unaudited interim results for the six months ended 30 June 2018 and the audited annual results for the year ended 31 December 2018, met with the external auditors to discuss such interim results and annual results (without the Company’s management being present), and was of the opinion that the preparation of the relevant financial statements complied with the applicable accounting standards and requirements and that adequate disclosure has been made;
- reviewed the accounting principles and practices adopted by the Group, and recommended the appointment of the external auditors;
- reviewed the effectiveness of the Group’s internal audit function;
- reviewed the effectiveness of the Group’s internal control systems on all major operations of the Group, which was considered effective and adequate; and
- assisted the Board in meeting its responsibilities for maintaining an effective system of internal control.

During the year ended 31 December 2018, two meetings were held by the Audit Committee. The attendance record of each member of the Audit Committee at the meetings of the Audit Committee is set out below:

Name of Director	Attendance of Audit Committee Meetings
Ms. Chen Hua ( <i>Chairman</i> )	2
Mr. Fan Ren Da Anthony	2
Mr. Chia Yew Boon	2

There had been no disagreement between the Board and the Audit Committee during the financial year ended 31 December 2018.

## REMUNERATION COMMITTEE

The Company established a remuneration committee on 8 September 2011 with written terms of reference. The primary duties of the remuneration committee are to make recommendation to the Board on the overall remuneration policy and structure relating to all Directors and senior management of the Company, review remuneration, and ensure none of the Directors determine their own remuneration. At the beginning of the year, the remuneration committee consisted of three members, namely, Mr. Chia Yew Boon and Mr. Fan Ren Da Anthony (both are independent non-executive Directors) and Mr. Seah Han Leong (an executive Director). Mr. Fan Ren Da Anthony was the chairman of the remuneration committee. Mr. Seah Han Leong resigned and his resignation was effective from 7 February 2018. Mr. Huang Yu was appointed as a member of the remuneration committee on 16 March 2018, and the remuneration committee restored to a minimum of three members as prescribed under its terms of reference adopted by the Board on 21 March 2012. The remuneration committee currently consists of three members, namely, Mr. Chia Yew Boon and Mr. Fan Ren Da Anthony (both are independent non-executive Directors) and Mr. Huang Yu (an executive Director). Mr. Fan Ren Da Anthony is the chairman of the remuneration committee.

During the year ended 31 December 2018, the Remuneration Committee mainly performed following duties:

- reviewed the Group’s remuneration policy and reviewed the remuneration package of the executive Directors and senior management for the year of 2018.



During the year ended 31 December 2018, one meeting was held by the Remuneration Committee. The attendance record of each member of the Remuneration Committee at the meetings of the Remuneration Committee is set out below:

Name of Director	Attendance of Remuneration Committee Meeting
Mr. Fan Ren Da Anthony ( <i>Chairman</i> )	1
Mr. Huang Yu (appointed on 16 March 2018)	1
Mr. Chia Yew Boon	1
Mr. Seah Han Leong (resignation effective on 7 February 2018)	0

Notes:

- (1) Since 1 January 2018 and up to Mr. Seah's resignation, no remuneration committee meeting of the Company was held.
- (2) Since Mr. Huang's appointment and up to 31 December 2018, a total of one remuneration committee meeting of the Company were held.

The remuneration of the members of the senior management by band for the year ended 31 December 2018 is set out below:

Remuneration bands (HKD'000)	Number of persons
1,000–1,500	1
1,500–2,000	1

Further particulars regarding Directors' remuneration and the five highest paid employees as required to be disclosed pursuant to Appendix 16 to the Listing Rules are set out in notes 8 and 9 to the financial statements.

## NOMINATION COMMITTEE

The Company established a nomination committee on 8 September 2011 with written terms of reference. The primary duties of the nomination committee are to review the structure, size and composition of the Board on a regular basis and to recommend to the Board the suitable candidates for directors after consideration of the nominees' independence and quality in order to ensure the fairness and transparency of all nominations. The nomination committee will also give consideration to the Board Diversity Policy when identifying suitably qualified candidates to become members of the Board, and the Board will review the Board Diversity Policy, so as to develop and review measurable objectives for the implementing the Board Diversity Policy and to monitor the progress on achieving these objectives. The nomination committee currently consists of three members, namely, Mr. Fan Ren Da Anthony, and Mr. Chia Yew Boon (two independent non-executive Directors) and Mr. Huang Yu (a non-executive Director). Mr. Chia Yew Boon is the chairman of the nomination committee.

During the year ended 31 December 2018, the Nomination Committee mainly performed following duties:

- reviewed the annual confirmation of independence submitted by the independent non-executive Directors and assessing their independence;
- reviewed the structure, size and composition of the Board during the year; and
- selected and recommended candidates for directorship during the year.



During the year ended 31 December 2018, one meeting was held by the Nomination Committee. The attendance record of each member of the Nomination Committee at the meetings of the Nomination Committee is set out below:

Name of Director	Attendance of Nomination Committee Meeting
Mr. Chia Yew Boon ( <i>Chairman</i> )	1
Mr. Fan Ren Da Anthony	1
Mr. Huang Yu	1

## RISK MANAGEMENT COMMITTEE

The Company established a risk management committee on 29 March 2016 with written terms of reference. The primary duties of the risk management committee are to consider the risk management strategies of the Company, review the risk management system of the Group, assess the risks from major decisions and to consider solutions for significant risks, have periodic assessment on the Group's risk profile and risk management capabilities, make recommendations on the improvement of the Group's risk management systems, consider major investigations findings on risk management matters and management's response to these findings, oversee the Group's risk management systems on an ongoing basis, ensure that a review of the effectiveness of the risk management systems of the Group has been conducted at least annually and report to shareholders that it has done so in its Corporate Governance Report. The risk management committee currently consists of all the current Directors of the Board, namely, Mr. Zhao Xiaobo and Mr. Qin Xuzhong (both are executive Directors), Mr. Huang Yu, Mr. Liu Tianmin and Mr. Wang Yinghu (all are non-executive Directors), Mr. Fan Ren Da Anthony, Mr. Chia Yew Boon and Ms. Chen Hua (all are independent non-executive Directors). Mr. Fan Ren Da Anthony is the chairman of the risk management committee.

During the year ended 31 December 2018, the Risk Management Committee mainly performed following duties:

- assess and review the effectiveness of the risk management system of the Group which was considered effective and adequate; and
- assisted the Board in meeting its responsibilities for maintaining an effective system of risk management.

During the year ended 31 December 2018, one meeting was held by the Risk Management Committee. The attendance record of each member of the Risk Management Committee at the meetings of the Risk Management Committee is set out below:

Name of Director	Attendance of Risk Management Committee Meeting
Mr. Zhao Xiaobo	1
Mr. Qin Xuzhong	1
Mr. Huang Yu	1
Mr. Liu Tianmin	1
Mr. Wang Yinghu	1
Mr. Fan Ren Da Anthony	1
Mr. Chia Yew Boon	1
Ms. Chen Hua	1



## CORPORATE GOVERNANCE FUNCTION

The Company's corporate governance function is carried out by the Board pursuant to a set of written terms of reference adopted by the Board in compliance with Code Provision D.3.1 of the Corporate Governance Code, which include (a) to develop and review the Company's policies and practices on corporate governance and make recommendations to the board; (b) to review and monitor the training and continuous professional development of the Directors and senior management of the Group; (c) to review and monitor the Company's policies and practices on compliance with legal and regulatory requirements; (d) to develop, review and monitor the code of conduct and compliance manual (if any) applicable to employees of the Group and the Directors; and (e) to review the Company's compliance with the Corporate Governance Code and disclosure in the corporate governance report. The Board has held meetings from time to time to: (a) review the Company's policies and practices on corporate governance; (b) to review and monitor the training and continuous professional development of the Directors; and (c) to review the Company's compliance with the Corporate Governance Code and disclosure in the corporate governance report.

## CONSTITUTION

There has been no significant change in the Company's constitutional documents during the year ended 31 December 2018.

## FINANCIAL REPORTING

The Board, supported by the chief financial officer and the finance department, is responsible for the preparation of the financial statements of the Company and the Group for each financial year which shall give a true and fair view of the financial position, performance and cash flow of the Group for that period. The directors acknowledge their responsibilities for preparing the accounts of the Company. The Board is not aware of any material uncertainties relating to events or conditions that may cast significant doubt upon the Group's ability to continue as a going concern.

The responsibilities of KPMG, the Company's external auditors in Hong Kong, on the financial statements are set out in the section headed "Independent Auditor's Report" in this annual report.

## EXTERNAL AUDITORS' REMUNERATION

The Company has re-appointed KPMG as the external auditor in Hong Kong and appointed KPMG LLP as the Company's registered auditor in Singapore during the year ended 31 December 2018. The external auditors are refrained from engaging in non-audit services except for specific approved items. The Audit Committee reviews the external auditor's statutory audit scope and non-audit services and approves its fees. For the year ended 31 December 2018, the total fee paid/payable in respect of audit and non-audit services provided by the Company's external auditors is set out below:

	RMB'000
Audit and audit-related services	2,295
Non-audit services	–
	2,295



## INTERNAL CONTROLS AND RISK MANAGEMENT

The Board is responsible for ensuring the reliability and effectiveness of the Group's internal control systems on, among other things, financial, operational and compliance controls (including handling and dissemination of inside information), and the risk management system. In particular, regarding the controls for handling and dissemination of inside information, the employees, senior management and the Directors of the Company who possess or handles inside information are reminded of the inside information requirements under the Listing Rules and the Securities and Futures Ordinance (Chapter 571 of the laws of Hong Kong). The Directors, with the assistance of Mr. Leung Lok Wai, a joint company secretary of the Company, and the internal audit department of the Company, are responsible to ensure the inside information, if any, is kept confidential and disseminated to the public to avoid a false market in the listed shares of the Company as and when necessary. The Company may also seek professional advice to consider the dissemination of inside information to be public as and when necessary to ensure the Company will comply with the requirements under Listing Rules and the Securities and Futures Ordinance (Chapter 571 of the laws of Hong Kong). The internal control and risk management systems are designed to provide reasonable, but not absolute assurance against misstatement or loss, and to manage risks of failure in the Group's operational systems. The Group's internal control systems and risk management systems are reviewed at least annually. The Board together with the audit committee and the risk management committee have reviewed the effectiveness of the Group's internal control systems and on the risk management systems, respectively, on all major operations of the Group during the year under review.

The Group has an internal audit function carried out by the Group's internal audit department. The Group's internal control department has reported internal control fact findings to the Board and no major issues but areas for improvement have been identified. All of the recommendations from the Group's internal control department will be properly followed up by the Group to ensure that they are implemented within a reasonable period of time. Similar process has been carried out for the risk management systems. The Board and the audit committee considered that the key areas of the Group's internal control systems, including the adequacy of resources, qualifications and experience of our accounting and financial reporting staff, are reasonably implemented and effective and adequate. The Board and the risk management committee considered that the key areas of the risk management, including the identification, measuring and evaluation new risks, and the ongoing monitoring of existing business and operation risks identified to be effective and adequate. As such, the Board is of the view that the Group has fully complied with provisions of the Corporate Governance Code regarding internal control and risk management systems in general for the year ended 31 December 2018.

## SHAREHOLDERS RIGHTS

### **How Shareholders can convene an extraordinary general meeting and put forward proposals at Shareholders' meetings**

Under the Constitution, Directors may in general, whenever they think fit, convene extraordinary general meetings. Under Section 176 of the Companies Act (Cap. 50) of Singapore (the "Singapore Companies Act"), however, directors of the Company must notwithstanding anything in its Constitution, on the requisition of shareholders holding not less than 10% of the total paid-up capital of a company at the date of the deposit of the requisition, immediately proceed to convene an extraordinary general meeting to be held as soon as practicable but in any case not later than 2 months after receipt by the company of the requisition. In addition to the said right of requisition, two or more shareholders holding not less than 10% of the total number of issued shares of a company (excluding treasury shares) may also call a meeting of the company.

### **Procedures by which enquiries may be put to the Board**

Shareholders may send their enquiries and concerns to the Board by addressing them to Mr. Leung Lok Wai, a Joint Company Secretary by mail at the Company's principal place of business in Hong Kong or by email at paddy\_leung@thtf.com.cn. Mr. Leung Lok Wai will forward communications relating to matters within the Board's direct responsibilities to the Board and communications relating to ordinary business matters, such as suggestions, inquiries and customer complaints, to the chief executive officer of the Company.



## COMMUNICATIONS WITH SHAREHOLDERS

The management endeavours to maintain effective communications with the Shareholders and potential investors.

The Company meets the Shareholders at the annual general meeting, publish interim and annual reports on the websites of the Company and the Stock Exchange, and release press releases on the Company's website to keep the Shareholders and potential investors abreast of the Group's business and development.

## DIVIDEND POLICY

The Company has adopted a dividend policy (the "Dividend Policy"). According to the Dividend Policy, in deciding whether to declare or recommend dividends, the Board shall consider the Company's ability to pay dividends, which will depend upon, among other things:

- the actual and expected financial results of the Group;
- cashflow of the Group;
- financial conditions of the Group;
- Shareholders' interests;
- general business conditions and strategies;
- the current and future operations of the Group;
- future business plans of the Group;
- liquidity and capital requirements of the Group;
- taxation considerations;
- amount of distributable profits;
- contractual restrictions;
- statutory and regulatory restrictions under Singapore laws, any applicable laws, rules and regulations and the Company's articles of association; and
- any other factors the Board may deem relevant.

The Board will review and reassess the Dividend Policy and its effectiveness in its sole and absolute discretion on a regular basis or as required.



# ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT

We root our operations in Tsinghua and stem our businesses from THTF. As a pioneer of promoting urban development in energy saving, the Group focuses on urban energy management and smart energy-saving service. Our business comprises three major fields, including smart building and complex, smart transportation and smart energy. We combine the technique of “Internet + energy” with cloud platform to assist the construction of green smart cities and speed up urban sustainable development. The Group attaches great importance to issues related to the environment, society and governance (ESG), performs positive enterprise’s social duties and commits to serving our society by the power of science and technology.

According to the characteristics of the industry in which the business is placed, the Group has established an information management system covering the whole group against the environmental, social and governance issues identified and sorted out the statistic processes of relevant information and management mechanism and enriches the content of information disclosure on environment, society and governance. In addition, we set up a working group for ESG information collection, which is organized by the general manager office of the Group, including relevant functional departments such as human resources department, integrated management department, corporate management and administration department, corporate planning department, logistics and purchasing department, production and manufacturing department, quality management department, and technology institutions. We will gradually improve ESG governance structure for the core ESG management of the Group in the future.

## STAKEHOLDERS ENGAGEMENT

Keeping in mind the business model as well as internal and external communication, the Group has identified material types of stakeholders which have mutual influence with corporate operations to determine the focus of environment, society and governance for the Group through analyzing the demands of the stakeholders.

The major types of stakeholders of the Group include:

Stakeholders	Demands and Expectations	Communication and Response
Government and Supervision Authorities	<ul style="list-style-type: none"> <li>– Observe the laws and regulations</li> <li>– Promote technology advancement</li> <li>– Serve for the national economy and the people’s livelihood</li> </ul>	<ul style="list-style-type: none"> <li>– Visit reception</li> <li>– Report submission</li> <li>– Company website</li> <li>– Negotiation and cooperation</li> </ul>
Shareholders	<ul style="list-style-type: none"> <li>– Maintain good business performance</li> <li>– Compliance operation</li> <li>– Information disclosure</li> </ul>	<ul style="list-style-type: none"> <li>– Company announcement</li> <li>– Project report</li> <li>– Visit reception</li> </ul>
Customers	<ul style="list-style-type: none"> <li>– Provide high quality products and services</li> <li>– Satisfy various customers’ demands</li> </ul>	<ul style="list-style-type: none"> <li>– Regular communication with customers</li> <li>– Customers’ satisfaction survey</li> <li>– Customers’ complaint handling and feedback</li> </ul>
Employees	<ul style="list-style-type: none"> <li>– Protect employees’ rights and interest</li> <li>– Guarantee occupational health</li> <li>– Focus on training and development</li> <li>– Balance work and life</li> </ul>	<ul style="list-style-type: none"> <li>– Employees’ meeting</li> <li>– Employees’ advice platform</li> </ul>
Suppliers and partners	<ul style="list-style-type: none"> <li>– Open, fair and impartial purchasing</li> <li>– Honor the contract</li> <li>– Mutual benefit and win-win result</li> </ul>	<ul style="list-style-type: none"> <li>– Signing the contract pursuant to laws</li> <li>– Open bidding</li> <li>– Project cooperation</li> </ul>
Community	<ul style="list-style-type: none"> <li>– Participate community’s development</li> <li>– Support public activities</li> <li>– Assist educational business</li> </ul>	<ul style="list-style-type: none"> <li>– Community activities involvement</li> <li>– Interview and communication</li> </ul>



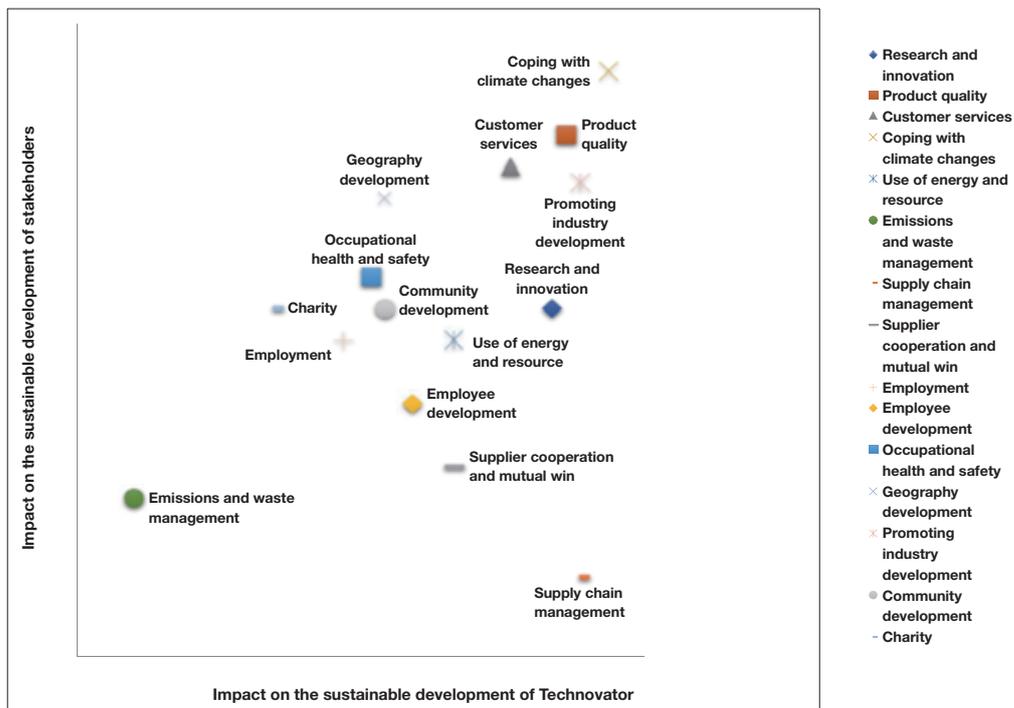
## RESPONSE TO THE ESG REPORTING PRINCIPLES OF THE STOCK EXCHANGE

**Materiality:** In order to further identify the key areas of practices and information disclosure for corporate environment, society and governance, enhance the pertinence and responsiveness of the report, the Group has initiated the identification procedures of material issues and has decided the important level of each issue with materiality as a result of issue disclosure extent and boundary to ensure a more accurate and complete disclosure information related to the operation management of the Group.

### Identification Procedures of Issues on Environment, Society and Governance



### 2018 Material Issues Matrix of Technovator





**Quantitative:** In accordance with “Key Performance Indicator” requirements in the *Environmental, Social and Governance Reporting Guide* set out in Appendix 27 to the Rules Governing the Listing of Securities on the Stock Exchange of Hong Kong Limited, the Group discloses quantitative indicators related to the “Environmental” category and interprets for immaterial indicators, discloses quantitative indicators related to the “society” category to the maximum extent and will gradually achieve comprehensive disclosure in the future.

**Balance:** The report discloses efforts to achieve objectivity and impartiality that truly reflect the effectiveness and practice of the Group’s 2018 ESG work, and to disclose anti-corruption and safety issues in accordance with “Key Performance Indicator” requirements in the *Environmental, Social and Governance Reporting Guide* set out in Appendix 27 to the Rules Governing the Listing of Securities on the Stock Exchange of Hong Kong Limited.

**Consistency:** The report follows a consistent method of information statistics. In 2018, the Group further expanded the range of information statistics organizations for all subsidiaries and affiliates of Technovator, the disclosure time range is natural year 2018 (i.e. January 1, 2018 – December 31, 2018), and some indicators have been disclosed for three consecutive years from 2016.

## COPING WITH CLIMATE CHANGES

Positioning as a leading urban smart energy saving service provider in the PRC, the Group focuses on fields of smart transportation, smart building and complex and smart energy to provide sustainable solutions for urban development. By means of information technology and big data management model, we intend to create a safe, efficient, green urban form, build smart and low-carbon cities, accelerate regional low-carbon development and jointly contribute to the achievement of the objectives of *The 13th Five-Year Work Plan for Controlling Greenhouse Gas Emissions* (《[十三五]控制溫室氣體排放工作方案》) launched by the State Council in order to cope with the challenges posed by climate change. Technovator has assisted in the establishment of the central level E-Cloud Service Center for the Ministry of Housing and Urban-Rural Development of PRC and we also have established the provincial and municipal E-Cloud Service Center in the regions such as Hunan Province, Chongqing City, Wuhan City and Karamay City, providing important technical support for green operations for cities. In 2018, the Group upgraded and retrofitted heat-exchange units with concentrated large temperature difference for more than 50 heat stations in Taiyuan City. The total capacity of heat-exchange units with large temperature difference was more than 200MW, which can improve more than 50% of transmission capacity of existing pipe network and increase urban heating area by 2 million square meters.

The Group has intensively explored the field of building energy conservation for many years, promoting the urbanization of building energy-saving business, and paying attention to representative high energy consuming buildings, including shopping centers, hospitals, universities, offices and cultural venues. We adopt contract energy management model together with Technovator’s Techcon EEC System and LED lighting energy-saving products to carry out the overall energy-saving transformation in aspects of public areas’ LED lighting, air conditioning system smart control and elevator system. In 2018, the Group carried out a comprehensive technical optimization upgrade of the main reception venues of the Hubei Provincial Museum and controlled the temperature in  $25^{\circ}\text{C} \pm 1^{\circ}\text{C}$ . While keeping an optimal storage environment temperature and humidity of the museum, the energy consumption had been significantly reduced, which set a new industry low carbon benchmark for the construction of national museum building control system; the renovation for energy conservation of Daqing West Station had undergone processes including the upgrading of lighting system, the transformation and automatic control of plumbing type air machine, as well as the frequency conversion transformation and automatic control of wind turbine and water pump, saving more than 5 million kWh per year, representing a comprehensive energy conservation rate of 50%.

In the field of smart transportation, the Group has built a host of M+ urban rail transit solutions, which used cloud computing and big data platform as its core, providing such an integrated one-stop solution as Environmental Supervision and Control System and Rail Transit Energy Conservation, to facilitate the implementation transforming from the traditional automatization to intelligent network urban rail transport and promote the development of the urban low-carbon transportation. In 2018, the Group has provided integrated supervision and control system service for Hangzhou-Lin’an Inter-city Railway, which adopted Integrated Supervision and Control System (ISCS) software platform for rail transit independently developed by the Group. While improving the operational efficiency of the whole station, the Group has provided such transforming initiatives as intelligent optimization of cooling mode and energy-saving system of ventilation and air conditioning to create a green transportation hub with high efficiency and low energy consumption.

Based on the sense of corporate responsibility of “saving energy for the country and saving resources for the people”, the Group has built the first enterprise-level professional research institute in China that is positioned to “energy conservation of urban buildings”. It has several energy conservation products, including an energy management system, energy conservation of heating and cooling sources of central air-conditioning, as well as energy saving experts control system of central air-conditioning which are developed independently. The Group is focusing on the promotion and application of renewable energy utilization technology and industrial waste heat recovery technology. By the end of 2018, the energy conservation promotion project implemented by the Group has exceeded 200 million square meters, and the energy conservation project of industrial waste heat recovery can save 200,000 tons of standard coal per year. In 2018, the Group was awarded ten honors, including “2018 Energy Saving Industry Branded Enterprise” and “2018 Contract Compliance and Good Credit Enterprise of Energy Conservation Service Industry” in “2018-2019 Annual Summit of Energy Conservation Service Industry”. It was included in “2018 Top 50 Environmental Enterprises in China” in the First “Green and Innovative Meeting in China” hosted by Environment for China Federation of Industry Chamber of Commerce and Foreign Economic Cooperation Office of the Ministry of Ecology and Environment. The Group won the “Top Ten Building Automation Control Brand Award” in the “China Intelligent Building Brand Award” for six successive years.



## LEADING INDUSTRY INNOVATION

As a responsible company, the Group strives to contribute to shaping sound industry ecology while doing the iterative innovation of technology and market.

### Innovation on Research and Development

Nowadays, with the rapid development of science and technology, under the support for the technology and industry integration and development strategy of “technology + industry”, the Group insists on industry, academia and research teaming-up, integrating industrial operation, technology incubation and financial resources for a sharing, co-creation and win-win ecosystem of the technology and innovation integration.

Focusing on the frontier of energy conservation technologies, the Group provides a one-stop, full-process and diverse integrated energy-saving and emission-reduction solution, and develops systems to establish services and products in the areas of urban rail transport, building-oriented automatic control, energy-saving building, and urban central heating, which include building control and energy management product systems with Techcon building control and management system, E-Cloud Energy-Saving Cloud Service Center, Energy Management System (EMS), Energy Conservation Experts control system (EEC) system as the core systems; and rail transit hardware and software products and systems including metro BAS environment and equipment monitoring, ezISCS rail transit integrated supervision and control system, and safety door products; as well as heat-supply management system and products including heat exchange units for substantial temperature differentials with full operating conditions, and urban central heating management and control information service platform.

The Group attaches great importance to technological innovation and talent cultivation and encourages innovation on R&D. The Group has three enterprise-level professional research institutes, namely the Building Data Application Research Institute, the Building Smart Control Research Institute and the Building Energy Planning Institute, focusing on the application of new technologies such as Internet of Things (IoT), cloud computing and big data in the industry. The number of staff at over postgraduate level in the institutes is standing for 47%, with many experts from Tsinghua University to provide solid talent support for technological innovation. At the same time, the Group set up a research and development platform in Singapore and recruit talented people to build an international team. The Group implements an innovative reward mechanism, with a one-time reward of RMB5,000 for each invention patent and RMB2,000 for each utility patent. We incubate excellent advanced technologies in universities and research institutes on the company platform, and subsequently realize industrialization. The development path of innovation has enabled the Group to incubate more than 200 key scientific research achievements over the years, including several first-class scientific research achievements in national scientific and technological progress, as well as a wide range of technologies and products with independent intellectual property rights.

### Leading Industry Development

As an important promoter of domestic energy-saving service and a leading company in science and technology service industry, the Group takes an initiative in the participation in industrial exchange and research established by various organizations to jointly promote the industry development and progress.

The Group has witnessed the development progress of the intelligent building industry in China for 3 decades from scratch and always paid attention to the changes in industrial forms and industry ecology, leading the direction of the intelligent building industry. The Group cooperated with Intelligent Building Branch of China Construction Industry Association to participate in the construction of the intelligent building industry standard system; we shared the responsibility for the issue of “urban multi-building energy-saving operation service market mechanism and realization path research” with the Energy Foundation of the United States, conducting in-depth researches on urban energy management and building energy conservation transformation and promoting their industrial transformation. In the key project, namely “Research and Demonstration on Key Technologies in Building Energy Conservation”, under the national technology support program of the “11th Five-Year Plan”, the Group cooperated with the Chinese Academy of Engineering to conduct “China Smart City Construction and Promotion of Research on Strategy”. Technovator intensively participated in the research and development and application of group intelligent technology. Since 2016, it has undertaken the “Hardware and Software R&D of Plug-and-Play Flat Building Intelligent System Platform without Centralization”, the “Implementation of Intelligent System for New Building in Engineering Practices” and the “Evaluation Method of Intelligent System for New Building in Operation and Maintenance” in the national level key R&D support project, namely *Intelligent System Platform Technology for New Building*, of the “13th Five-Year Plan”, and carried out demonstration projects. The Group was awarded the “Vice Chief Committee Member” by Group Intelligence Energy-saving Building Professional Committee of China Energy Conservation Association in 2018; it intensively participated in the “Key Technologies and Demonstration on Energy-saving Building of Public Transportation Hubs” project in the national key R&D program of the “13th Five-Year Plan” as a backbone unit of the issue to preside over its sub-issue of “R&D of High-efficiency and Energy-saving Equipment for Subway Environmental Control System” efforts, and participated in the research on sub-issue of “Energy-saving Effect Evaluation and Technology Promotion and Application Strategy for Subway Station Building Demonstration Project”.

At the same time, the Group proactively participated in the formulation of industry standards, including more than 10 national standards and specifications in the fields of intelligent building and electrical, heating and air conditioning and building energy conservation as well as urban fire-fighting monitoring. In 2018, the Group participated in the preparation of standards for intelligent building groups such as *Building Equipment Management System Engineering Technical Standards*, *Building Information Model (BIM) Intelligent Design Product Classification and Coding Standards* and *Building Information Model (BIM) Intelligent Design and Delivery Standards*, to jointly promote the development of the intelligent building industry.



## ENVIRONMENTAL PROTECTION

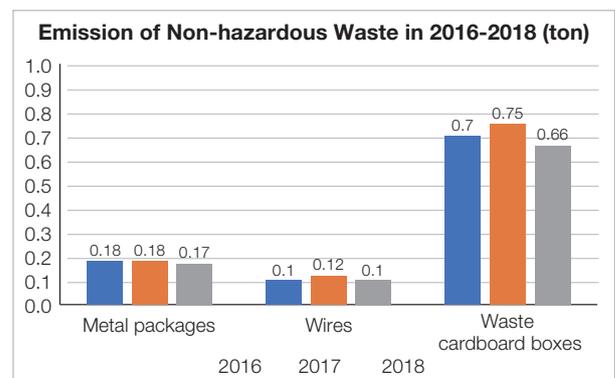
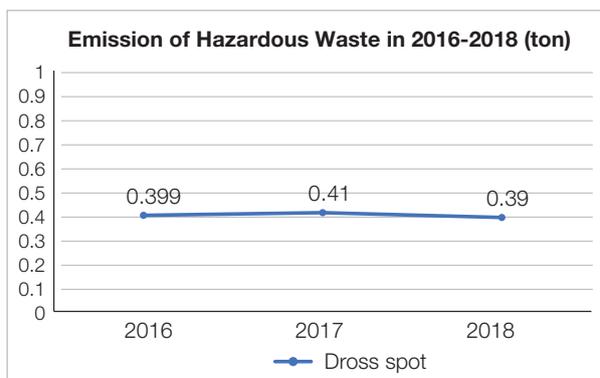
The Group’s production and operation involves the products related to smart sensor, rail transit and safety door system, and intelligent heating supply. As an unconventional industry against the high energy consuming, though we have a lower impact on environment and nature resources, we are still strictly in compliance with relevant laws and regulations like *Environmental Protection Law of the People’s Republic of China*, *Law of the People’s Republic of China on the Prevention and Control of Environmental Pollution by Solid Waste* and *Energy Conservation Law of the People’s Republic of China*. During our production and operation process, we insist on practicing green and environmental protection for minimizing our impact on environment. In 2018, the Group has not been subject to any fines or legal action arising from environmental matters.

The Group keeps improving the environmental management system. In 2007, we obtained the ISO 14001 Environmental Management System Certification. Furthermore, we consistently strengthened the management and control on environment in 2018, and formulated environmental management systems for processing and manufacturing business (such as PCB), which includes *Rules Governing Identification of Environmental Factors and Determination of Important Factors*, *Rules Governing Environmental Targets, Indicators and Programs*, *Rules Governing Environmental Monitoring and Conformance Evaluation*, *Rules Governing Noncompliance and Rectification Measures on Environment*, which enables the Group to dynamically assess our business impact on environment and resources, improve the environmental compliance risk management, and promote innovating measures for environmentally-friendly and sustainable development.

### Emission Management

The Group’s emissions mainly come from the indirect emission from electricity consumption arising from heating supply and office, and little direct emission from our office gasoline vehicles. However, there is no direct emission from boilers and other equipment powered by coals and gas.

The Group attaches particular importance to waste management, and monitors and discharges the wastes in compliance with relevant requirements of laws and regulations strictly. In the process of product development and production, we identify the hazardous waste from the source, and use alternatives to reduce harm to the environment as much as possible. Wastes including dross spot, metal packages, wires and cardboard boxes are delivered to and disposed by qualified third party in each year. Those wastes arising from office and operation like disks, computer accessories, used batteries, toner cartridges, ink boxes and plastics, are classified and collectively disposed so as to minimize the harm. At the same time, the Group cleans up the kitchen waste on a regular basis to create comfortable and environmentally friendly workplace while achieving sustainable operation.



The Group generates no waste liquid but the production process is accompanied with lead waste gas. In order to lower the environmental pollution risks, we engage external third party of qualified monitoring institution to monitor the exhaust gas and we have passed the environment protection department’s review that we are satisfied the requirements of national and local environmental standards.



**Consumption of Resource**

For production and manufacture and office operation, the Group’s energy consumption is mainly electricity, in addition to certain consumption generated from gasoline for office vehicles every year. In 2018, the comprehensive energy consumption of the Group for the year was 612.86 tons standard coal, and energy consumption per RMB10,000 revenue was 0.4 kilograms standard coal.

For production and manufacture and office operation, the Group’ water resources all came from municipal network, thus we did not need to worry about the water sourcing. In 2018, the total usage of water was 56,859 tons, and water usage per RMB10,000 revenue was 0.28 ton.

Consumption of Resources of the Group

Types of resources		2018	2017	2016
Total power consumption (kWh)	Electricity consumption in production	3,994,108	389,746	363,788
	Electricity consumption in office area	603,317		
Total gasoline consumption (l)		44,838	28,721	17,300
Total water consumption (ton)	Water consumption in production	56,220	234	97
	Water consumption in office area	639		

Note: In 2018, as the Group further improved the data statistics system, the range of which has expanded to all subsidiaries within the Group, the energy and resource consumption have been increased significantly compared to those in the previous year.

Emission Volume of Greenhouse Gas of the Group in 2018

Types of greenhouse gas emissions	Emission sources Energy type (unit)	Carbon dioxide equivalent emissions (tons)
Indirect energy emission	Electricity consumption in production and office area (kWh)	3236.79
Direct energy emission	Official gasoline vehicles (l)	97.37
Total		3334.16
Emission volume of carbon dioxide per RMB10,000 revenue (ton)		0.016

Note: The amount is calculated based on the “Baseline Emission Factors for Regional Power Grids in China” for the 2017 Emission Reduction Project determined by the Department of Climate Change of the Ministry of Ecology and Environment.

The packaging materials of the Group’s products are mainly cardboard boxes, plastics, filling stuffs and so on. We strictly recycled and reused some packaging materials in accordance with the relevant national requirements in order to reduce packaging materials consumption and pollutants emission. In 2018, the consumption of cardboard boxes, plastics and filling stuffs amounted to 3.3 tons, 0.022 ton and 0.02 ton, respectively; consumption of packaging materials per RMB10,000 revenue was 0.016 kilogram; consumption of recycled packaging materials was 0.11 ton; all of which have decreased as compared with that of last year.

In 2018, the Group promoted green office by adopting online office system, advocating paperless office and using electronic documents for transmissions and records to reduce unnecessary printing. The Group recycled paper and used them two times as much as possible to save resources and also improve efficiency in office. The Group encouraged employees to save water and electricity through using LED energy-saving lamps in the office area to reduce electricity consumption, advocating switch off the lights in a timely manner, conducting daily power-off inspections of electricity consumption equipment such as air conditioners during peak hours, posted water-saving signs in office area to remind employees of closing the faucets, and strengthened the inspection of the water pipe network and water equipment in office and living areas to prevent leakage and waste.



## CARING FOR EMPLOYEES

### Equal Employment

The Group continues to optimize the internal staffing management system based on the principle of legitimate recruitment and use of workforce. The Group strictly abides by the Labor Law of the PRC, the Labor Contract Law of the PRC and the *Regulations on Prohibiting Use of Child Labor* and the relevant laws and regulations, and adheres to the bottom line of legal employment. We sign labor contracts with employees on voluntary basis, and have never had forced labor and illegal employment of child labor since the operation. The Group adheres to the concept of equal employment and has formulated the Management Measures for Staff Recruitment to standardize the recruitment process of employees, and to conduct fair and impartial recruitment of talents from open channels. The Group guarantees that employees will not be subject to discrimination on the ground of their gender, race, and marital status to make sure maximum equality of career opportunities for employees.

The Group attaches importance to legitimate interests of employees, and formulated the Welfare Management System, the Employee Complaint Management System and the Internship Student Management System. Employees can enjoy statutory holidays according to related laws and regulations. We make contributions to pension insurance, medical insurance, unemployment insurance, employment injury insurance, and maternity insurance, housing fund as well as additional medical insurance for employees. In 2018, the social insurance coverage rate of the Group's employees was 100%. The Group provides competitive compensations and benefits, and also sets up benefit programs such as subsidy for working meals and heating. We formulated and carried out the Enterprise Annuity Management System to enhance the employees' benefit, and those employees who joined the Company for over one year and had participated in basic pension insurance are eligible for voluntary participation in the system.

Upholding "people centrism", we care for every staff member. The Group established Employee Care and Subsidy Management, providing institutional guarantee for the basic needs of employees who have difficulties in livelihood, or suffered from sickness. In addition to helping the staff to solve substantive issues, we also organized love and care activities to console employees in need. By establishing a corporate culture of mutual support and care, we boost the corporate cohesion and enhance employees' sense of well-being.

During the current reporting period, the Company has a total workforce of 862, among which 845 employees entered into labor contract and 17 employees signed labor agreements, and no temporary worker and employee was assigned by third parties. The contracting rate for employees with labor contract was 100%. Turnover for employees with contract was 13.7%.

Set out below is the staff employment by type:

Age	Number of employees	Proportion of total employees	Turnover rate
Under 30 years old (30 years old exclusive)	191	22.2%	19.9%
30-50 years old (50 years old exclusive)	603	70.0%	11.8%
50 years old and above	68	7.9%	10.3%

Gender	Number of employees	Proportion of total employees	Turnover rate
Male	587	68.1%	15.0%
Female	275	31.9%	10.2%

Region	Number of employees	Proportion of total employees	Turnover rate
China Mainland	852	98.8%	13.3%
Hong Kong, Macao and Taiwan	2	0.2%	50.0%
Overseas	8	0.9%	25.0%



## STAFF DEVELOPMENT AND TRAINING

The talent is the core competitiveness for the Company. Adhering to the principle of mutual development for the enterprise and employees, the Group established training system for talent development, smoothing career path for employees and providing broad career platform and development space. The Company classified the job positions into five categories, namely management, management services, technical, marketing and operation based on the requirements of business development, and determined their functional department and development system according to employees' work experience and knowledge. The Group established the Performance Appraisal Management System, which takes the business performance as the core, comprehensively considers employees' potential capability and developmental needs, and specifies the promotion process for employees to ensure that all employees enjoy a fair and smooth promotion opportunities.

In addition, the Group takes the development goal and employees' actual needs as the starting point while the Human Resources Department designs targeted training development plan for different ranks and types of employees according to the annual strategy, operation plan and coordinated resources of the Company. The Group formulated and implemented the Training Management System and developed a training system featuring "Three Levels", "Four Types" and "Three Tiers". Trainings purposely cover aspects of corporate management, leadership, qualification certification, skills training and corporate culture, so as to improve the knowledge and skill level of employees, highlight key talents cultivation and provide a sound basis for the improvement of the Company's operation. Furthermore, the Training Management System also provides training mechanism and training information feedback in a bid to improve the training efficiency and refine employees' training work. In 2018, employee training hours of the Group were 20,410 hours.



**Chart: Training Management System of the Group**

The percentage of the employees trained and training hours per capita by gender are as follows:

	Percentage of the employees trained	Training hours per capita (hour)
Male employee	82.26%	29.40
Female employee	83.28%	30.96

The percentage of the employees trained and training hours per capita by the class of employees are as follows:

	Percentage of the employees trained	Training hours per capita (hour)
Senior Management	61.16%	26.47
Middle-level management	75.81%	27.07
Basic level management	79.93%	33.39



### Occupational Health and Safety

The Group takes care of employees' health with a high sense of responsibility, puts safety production and occupational disease prevention in a prominent position, and strives to create a healthy and safe production environment and working space for employees.

Safety production is a powerful guarantee for stable operation of enterprises. The Group strictly abides by the *Safety Production Law of the People's Republic of China*, implements the safety management policy of safety-led, prevention-oriented and comprehensive management, and implements the responsibility system for production safety. In order to standardize the production safety precautions of the employees, the Group strictly implements internal policies such as the *Management System for Safe Use of Electricity*, *Protection Measures for Electricity Leakage of Equipment and Circuit*, and *Special Equipment and Operator Management System* to carry out detailed and process-based safety management for all aspects of production and operation. It also formulated and issued the Provision and Management System for Labor Protection Articles and Administrative Measures for Industrial Accidents to regulate the types and periods of labor protection equipment for all positions and specify the work-related accident response process and support arrangements. In addition, the Company incorporates safety production into the employee training system and strengthens safety concepts and safe operation skills through safety education. In 2018, there was no fatal or serious production accident and the hours of work injury loss was 0.

Safety prevention and emergency work are the fundamental guarantees for achieving safe production. The Group has formulated the Fire Facilities Management System, which organizes employees to carry out fire emergency drills on a regular basis, and do a good job in daily production and operation safety supervision and major holiday fire inspections. For the emergency preparation, the Group formulated the QES Emergency Preparedness and Corresponding System, Production Safety Accident Emergency Rescue Plan and other methods to clarify emergency response measures, improve employees' emergency response and rescue capabilities, and ensure life safety and property safety.

Preventing occupational disease risk is an important part of employee rights. The Group has established an occupational health and safety management system strictly in accordance with the *Occupational Disease Prevention Law of the People's Republic of China* and passed the third-party certification of OHSAS18001 and formulated the a series of systems, including Management System for Hazard Identification, Risk Assessment and Measure Implement, Management System for Objectives and Solutions of Occupational Health and Safety and Management System Occupational Health and Safety Performance Monitoring and Compliance Evaluation in accordance with the requirements of the system. The Group clearly defines the responsibilities of safe production and occupational disease prevention and control of various departments and positions, conducts risk management and hazard investigation in an orderly manner, forms a target-monitoring-evaluation-improved occupational health management model, strengthens occupational disease prevention and management, and creates a safety, healthy and pleasant for employees working environment for employees.

## SUPPLY CHAIN MANAGEMENT

The supply chain is the source of the Group's products and services, an important partner of the company, and an integral part of the company's product liability. The Company has formulated the Supplier Management and Control Procedure. It specifies the obligations of procurement related departments such as procurement department, quality management department and warehousing and distribution department, and provides the basic requirements and workflow for the selection, assessment and management of suppliers to ensure that the process and procedure of procurement are clear. The Group has also instituted the Table of Data and Comments on Suppliers. From the aspects of quality level, performance capability, supply amount and product development capability, the supplier evaluation will be carried out on a regular basis. According to the evaluation results, supplier access and exit will be implemented according to the regulations, and regular monitoring and dynamic management of supply will be carried out to control the quality of the source.

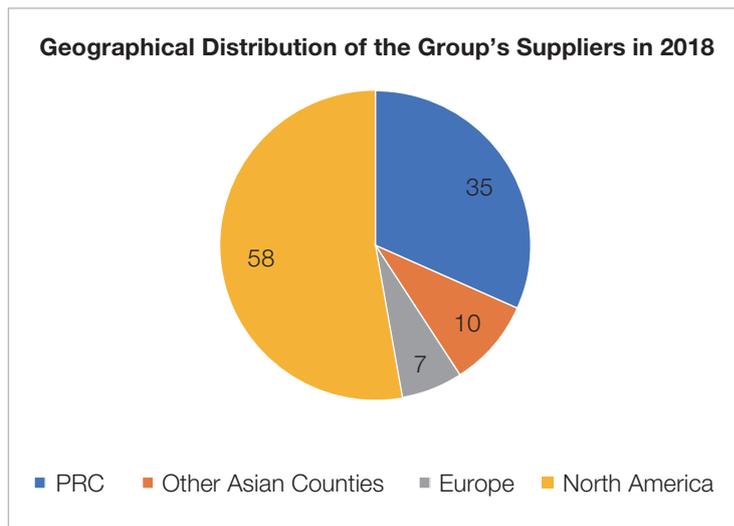
The Group has passed ISO 14001:2004 environmental management system certification and strictly abides by QC080000 electronic and electrical originals and products hazardous substances process management system. The Group has formulated the Procedures for Control on Product Procurement Process in accordance with environmental protection, quality standards and requirements to standardize the procurement process, reduce operational risks, and achieve standardized management of global multi-channel supply in terms of procurement of raw materials, ancillary materials, suppliers, as well as logistics, trade and other service providers.



The Group's products are exported to Europe and need to comply with RoHS standards and WEEE directives. Therefore, in 2018, the evaluation and management of RoHS raw materials and auxiliary materials suppliers have been strengthened, and the suppliers with good and high reputation, quality management and environmental management system certification will be given priority to reduce environmental and social risks in the supply chain and strengthen quality assurance.

For finished product suppliers, the Group prioritizes suppliers that have passed the Environmental Management System (ISO 14001) and Occupational Health and Safety Management System (OHSAS18001) certification and conducts a site examination as necessary on the manufacturers admitted to the suppliers list of the Group for the first time for a strict control over the risk.

During the current reporting period, the Group has 110 suppliers of which 3 suppliers being reviewed on site.



## PRODUCT RESPONSIBILITY

As a leading urban energy and smart energy-saving service provider in the PRC, the Group focuses on providing innovative high-quality products and services to digital cities, and is committed to becoming the most trusted energy-saving and security service partner for customers.

### Product Quality

The Group strictly complies with the *Product Quality Law of the People's Republic of China*. It established quality management system and electrical appliance harmful substances management system in accordance with ISO 9001:2015 *Quality Management System Requirements*, QC080000 (IECQ-HSPM) *Process Management System for Electronic and Electrical Originals and Products Hazardous Substances* and other requirements, and passed the third party's system certification. At the same time, the Group instituted an effective quality management structure, clearly defined the responsibilities and authority of each department from top to bottom according to the requirements of quality management system to fully implement product quality assurance work. In order to avoid the delivery of unqualified products and services to customers, the Group strictly implements quality control, including *Management System for Consistency of Certified Products*, *QES Rectification Measures Management System*, *Management System for Unqualified Products Output* and *Management System for Unqualified Projects Output*, to clarify product and engineering eligibility criteria and standardize treatment of potentially unqualified products and unqualified projects. In 2018, after a rigorous on-site audit and evaluation, the Group passed the CMMI International Certification and obtained the qualification certificate evaluated by the Carnegie Mellon Software Engineering Institute (SEI), which marks that the Group's software development, quality management and process improvement has been at the forefront of the world.



Benefited from the comprehensive product quality management process, no product was recalled by the Group by reasons of safety and health in 2018. Due to the nature of the business, the Group does not directly provide products and services to individual customers, so it does not involve customer personal data or privacy.

#### Customer Service

The Group insists on customer-oriented, takes effective feedbacks of customers as driving force of its continual progress and development, and with consistent professional attitude provides the most excellent service for customer. The Group formulated *Customer Service Management System* to set out the customer complaint handling system and procedures clearly. Customer Service Officer is set up to answer enquiries raised by customers, handle complaints from customers and track handling progress. In 2018, the Group has received 61 customer complaints in total and each of them was handled properly.

The Group carries out customer satisfaction survey on a regular basis every year to timely understand the customers' demands. In 2018, the Group continued to achieve 100% customer satisfaction.

#### Intellectual Property

Strengthening protection of intellectual property can effectively improve the Group's core competitiveness. The Group fully respects others' intellectual property, and protects its own patents from being infringed. The Group complies with the *Patent Law of the People's Republic of China* and the *Trademark Law of the People's Republic of China*. It formulated *Intellectual Property Management System*, which clearly standardizes the working procedures of patent application, patent maintenance, patent protection, patent licensing and transfer. The Group set up relevant personnel to improve the staff's knowledge on intellectual property protection.

In 2018, the Group obtained 2 patents and has accumulated 21 patents in total; the number of software copyright acquired is 4 and we have 49 software copyrights in total.



## ANTI-CORRUPTION

The Group is devoted to build an honest and upright working environment, fighting against on any kind of corruptions. Being strictly abide by the relevant Laws and regulations, including *Law Against Unfair Competition of the People's Republic of China* (《中華人民共和國反不正當競爭法》), *Interim Provisions on Banning Commercial Bribery* (《關於禁止商業賄賂行為的暫行規定》) and *Basic Norms of Enterprise Internal Control* (《企業內部控制基本規範》), the Group established clear codes of conduct, set up open channels for reporting and organized trainings for anti-corruption so as to enhance employees' awareness and put an end to corruption. In 2018, our accumulated training time for anti-corruption was 320 hours with 210 employees participated and there were no cases of anti-corruption or corruption litigation occurred.

## COMMUNITY

While pursuing its own development, the Group never forgets to give back to society and is enthusiastic about public welfare. On one hand, with our own technical advantage, we promote the development of intelligent city by providing comprehensive digital solutions for the city. On the other hand, we care for the underprivileged groups and give support to the development of educational undertaking.

### Intelligent City

With the constant development of information technology, the advantages of intelligent city become increasingly prominent in cutting down resource consumption, reducing environmental impact, solving the traffic jams and eliminating the potential safety hazard, which is significant to the realization of urban sustainable development. As a forerunner for promoting the intelligent city and with its advanced development capability in cloud technology, the Group develops its own building-oriented automatic control system product Techcon and the fire-fighting remote monitoring system product Techcon FAS, which are based on the technology of "internet + energy" and could provide users with comfortable and safe environment through the energy management tools and the intelligent fire-fighting cloud platform.

In 2018, the Group installed the Techcon 09 control and management system for the tourist distribution center of Silk Road in Xinjiang. It provides tourists with comfortable experience by ensuring safe and stable operations for the equipment in the tourist distribution center under circumstances of complex climate and large traffic flow and effectively promoting equipment utilization and property management. To cater the needs of the residents in Aoyuan City World in Chongqing, the Group provides Techcon 04 control and management system which keeps a stable operation for the equipment by improving the systematic integration of commercial complex. It effectively reduces the electromechanical operation cost while achieving energy saving.

### Community Welfare

The Group never forgets its aspiration and always commits itself in social welfare by visiting the solitude elderly and disabled children, supporting the school running in mountain areas, helping colleges in building intelligent laboratory and providing professional technical guidance for students. The Group devoted RMB50,000 for community welfare in 2018.

In 2018, the Group actively responded to the call of "The love outreach for Chinese intelligent building industry to walk into Xinjiang welfare" and contributed to the improvement of local students' learning environment by donating studying supplies to Tuolixiang Primary School at Urumchi and some primary schools at Minfeng County, Hetian District, Southern Xinjiang.



# INDEPENDENT AUDITOR'S REPORT

## **Independent auditor's report to the shareholders of Technovator International Limited**

*(Incorporated in Singapore with limited liability)*

### **OPINION**

We have audited the consolidated financial statements of Technovator International Limited ("the Company") and its subsidiaries ("the Group") set out on pages 67 to 148, which comprise the consolidated statement of financial position as at 31 December 2018, the consolidated income statement, the consolidated income statement and other comprehensive income, the consolidated statement of changes in equity and the consolidated cash flow statement 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 Hong Kong Financial Reporting Standards ("HKFRSs") issued by the Hong Kong Institute of Certified Public Accountants ("HKICPA") 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 ("HKSAAs") issued by the 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") together with any ethical requirements that are relevant to our audit of the consolidated financial statements in Singapore, and we have fulfilled our other ethical responsibilities in accordance with these requirements and 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.



## KEY AUDIT MATTERS *(Continued)*

### Accounting for construction projects

Refer to note 3 to the consolidated financial statements and the accounting policies on page 98.

The Key Audit Matter	How the matter was addressed in our audit
<p>The Group's revenue for the year ended 31 December 2018 from construction projects totalled RMB1,817 million, which accounted for 89% of the total revenue for the year. The construction projects entered into by the Group are primarily energy saving projects relating to transportation, building and industrial businesses.</p> <p>The Group has initially applied HKFRS 15 on 1 January 2018 and elected to recognise the cumulative effect of initial application as an adjustment to the opening balance of equity at 1 January 2018.</p> <p>Revenue from construction projects is recognised in proportion to the stage of completion of the project, measured by comparing the costs incurred up to the reporting date to the total forecast costs at completion of the project when the control of the goods is regarded as being transferred over time under HKFRS 15.</p> <p>Based on the nature of construction activities, revenue and profit or loss recognised on a project in progress at the reporting date is highly dependent on management's estimation of the total costs required to complete the project and the percentage of work completed at the reporting date.</p>	<p>Our audit procedures to assess accounting for construction projects included the following:</p> <ul style="list-style-type: none"><li>obtaining an understanding of and assessing the design, implementation and operating effectiveness of management's key internal controls in relation to accounting for construction projects;</li><li>obtaining an understanding of management's assessment of impact of initial application of HKFRS 15, and testing the accuracy of the data used in the calculation of opening adjustments at 1 January 2018 by examining the information to the underlying supporting documents on a sample basis;</li><li>reading contracts on a sample basis to obtain an understanding of the key terms and risks associated with individual projects and the accounting implications thereof;</li><li>recalculating management's calculations of the percentage of completion for each project at the reporting date by comparing the key inputs in the calculations, including total project revenue, costs incurred to date and amounts invoiced to date, with project terms, invoices issued and vendor invoices, on a sample basis;</li><li>examining written documentation from customers indicating their acceptance of the work performed to date on projects, with reference to related third party engineers' certification of work completed, if any, on a sample basis;</li></ul>



## KEY AUDIT MATTERS *(continued)*

### Accounting for construction projects *(continued)*

Refer to note 3 to the consolidated financial statements and the accounting policies on page 98.

The Key Audit Matter	How the matter was addressed in our audit
<p>We identified accounting for construction projects as a key audit matter because a significant degree of management judgement is required to be exercised, based on the latest progress of each project, particularly in estimating the future costs to complete a project which could be subject to management bias.</p>	<ul style="list-style-type: none"><li data-bbox="847 547 1469 799">• challenging management's estimations of the expected future costs required to complete individual projects by comparing costs to be incurred with signed subcontractor projects and by benchmarking with similar estimations for comparable projects, on a sample basis, and assessing if there was any indication of management bias in the estimations;</li><li data-bbox="847 836 1469 1052">• assessing the accuracy of management's historical forecasts by comparing the actual costs for projects completed during the current year to forecasts made at the prior year end and enquiring of management for reasons for any material differences between the estimations and the actual outcome;</li><li data-bbox="847 1088 1469 1304">• identifying possible onerous projects by comparing the latest budgeted costs, taking into consideration the actual costs incurred up to 31 December 2018, with the project revenue for individual projects, on a sample basis, and assessing if any provision for foreseeable losses was required when the budgeted costs exceeded the project revenue; and</li><li data-bbox="847 1341 1469 1468">• assessing the related disclosures in the consolidated financial statements with reference to the requirements of the prevailing accounting standards.</li></ul>



## KEY AUDIT MATTERS *(continued)*

### Valuation of contract assets and trade receivables

Refer to notes 16 and 17 to the consolidated financial statements and the accounting policies on page 94.

The Key Audit Matter	How the matter was addressed in our audit
<p>The Group's contract assets and trade receivables arise from the Group's construction projects. As at 31 December 2018, the aggregate amount of contract assets and trade receivables totalled RMB1,821 million.</p> <p>The Group has initially applied HKFRS 9 on 1 January 2018 and assessed that the transition of HKFRS 9 has no material impact on impairment loss. Therefore, the Group did not recognise any cumulative effect of initial application as an adjustment to the opening equity at 1 January 2018.</p> <p>The Group measures loss allowances on contract assets and trade receivables at amounts equal to lifetime expected credit losses (the "ECL") using a provision matrix which involves significant management judgement in estimating loss rate and adjusting factors that are specific to the debtors and an assessment of the current conditions and forecast of future economic conditions for industries in which they operate at the reporting date.</p> <p>At 31 December 2018, the Group recognised loss allowances for contract assets and trade receivables of RMB80 million.</p> <p>We identified the valuation of contract assets and trade receivables as a key audit matter because of the significance of the contract assets and trade receivables balance and because the recognition of ECL is inherently subjective and involves a significant degree of management judgement.</p>	<p>Our audit procedures to assess the valuation of contract assets and trade receivables included the following:</p> <ul style="list-style-type: none"><li>• obtaining an understanding of and assessing the design, implementation and operating effectiveness of management's key internal controls relating to credit control and the estimation of the ECL;</li><li>• obtaining an understanding on the key data and assumptions of the ECL model adopted by management, including the basis of the historical loss rates, historical transition rates and recalculating the historical loss rates and historical transition rates in the ECL model;</li><li>• assessing the classification of individual balances in the ageing report by comparing the details in the ageing report with relevant underlying documents, including goods delivery notes, completion reports for construction services and payment terms as set out in the contracts with customers, on a sample basis; and</li><li>• assessing the related disclosures in the consolidated financial statements with reference to the requirements of the prevailing accounting standards.</li></ul>



## INFORMATION OTHER THAN THE CONSOLIDATED FINANCIAL STATEMENTS AND AUDITOR'S REPORT THEREON

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

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

The directors 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. This 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 HKSAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with HKSAs, 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.



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

- 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.

We also provide the Audit Committee with a statement that we have complied with relevant ethical requirements regarding independence and 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 Ho Ying Man.

### **KPMG**

*Certified Public Accountants*  
8th Floor, Prince's Building  
10 Chater Road  
Central, Hong Kong

20 March 2019



## CONSOLIDATED INCOME STATEMENT

For the year ended 31 December 2018  
(Expressed in Renminbi (“RMB”))

	Note	2018 RMB'000	2017 (Note) RMB'000
<b>Revenue</b>	3,4	<b>2,036,588</b>	1,979,970
Cost of sales		<b>(1,560,590)</b>	(1,485,861)
<b>Gross profit</b>		<b>475,998</b>	494,109
Other revenue	5(a)	<b>47,527</b>	38,329
Other net (loss)/gain	5(b)	<b>(212)</b>	2,822
Selling and distribution costs		<b>(85,049)</b>	(81,949)
Administrative and other operating expenses		<b>(115,792)</b>	(133,432)
Share of losses of associates		<b>(561)</b>	–
<b>Profit from operations</b>		<b>321,911</b>	319,879
Finance costs	6(a)	<b>(10,828)</b>	(13,500)
<b>Profit before taxation</b>		<b>311,083</b>	306,379
Income tax	7(a)	<b>(49,749)</b>	(43,488)
<b>Profit for the year</b>		<b>261,334</b>	262,891
<b>Profit attributable to:</b>			
Equity shareholders of the Company		<b>261,165</b>	259,358
Non-controlling interests		<b>169</b>	3,533
<b>Profit for the year</b>		<b>261,334</b>	262,891
<b>Earnings per share</b>	10		
– Basic (RMB)		<b>0.3338</b>	0.3269
– Diluted (RMB)		<b>0.3338</b>	0.3269

Note: The Group has initially applied HKFRS 15 and HKFRS 9 at 1 January 2018. Under the transition methods chosen, comparative information is not restated. See note 2(c).

The accompanying notes form part of these financial statements.



## CONSOLIDATED INCOME STATEMENT AND OTHER COMPREHENSIVE INCOME

For the year ended 31 December 2018  
(Expressed in Renminbi ("RMB"))

	2018 RMB'000	2017 (Note) RMB'000
<b>Profit for the year</b>	<b>261,334</b>	262,891
<b>Other comprehensive income for the year</b>		
Item that may be reclassified subsequently to profit or loss:		
Exchange differences on translation of financial statements of overseas subsidiaries, net of nil tax	<b>5,566</b>	(9,775)
<b>Total comprehensive income for the year</b>	<b>266,900</b>	253,116
<b>Attributable to:</b>		
Equity shareholders of the Company	<b>266,660</b>	249,583
Non-controlling interests	<b>240</b>	3,533
<b>Total comprehensive income for the year</b>	<b>266,900</b>	253,116

Note: The Group has initially applied HKFRS 15 and HKFRS 9 at 1 January 2018. Under the transition methods chosen, comparative information is not restated. See note 2(c).

The accompanying notes form part of these financial statements.



## CONSOLIDATED STATEMENT OF FINANCIAL POSITION

At 31 December 2018

(Expressed in Renminbi (“RMB”))

	Note	31 December 2018 RMB'000	31 December 2017 RMB'000
<b>Non-current assets</b>			
Property, plant and equipment	11	273,284	284,644
Interests in associates		7,939	–
Lease prepayment		2,737	2,848
Intangible assets	12	290,639	271,957
Other financial assets	13	531,813	414,328
Deferred tax assets	22	18,505	17,604
		<b>1,124,917</b>	991,381
<b>Current assets</b>			
Inventories	15	792,027	375,525
Contract assets	16	795,672	–
Trade and other receivables	17	1,209,329	1,438,201
Gross amounts due from customers for contract work		–	899,324
Cash and cash equivalents	18	689,018	521,262
		<b>3,486,046</b>	3,234,312
<b>Current liabilities</b>			
Trade and other payables	19	1,523,416	1,512,632
Gross amounts due to customers for contract work		–	15,507
Contract liabilities	16	111,655	–
Loans and borrowings	20	239,820	242,306
Obligations under finance leases		–	169
Income tax payable		41,036	30,613
		<b>1,915,927</b>	1,801,227
<b>Net current assets</b>		<b>1,570,119</b>	1,433,085
<b>Total assets less current liabilities</b>		<b>2,695,036</b>	2,424,466

The accompanying notes form part of these financial statements.



## CONSOLIDATED STATEMENT OF FINANCIAL POSITION

At 31 December 2018

(Expressed in Renminbi ("RMB"))

	Note	31 December 2018 RMB'000	31 December 2017 (Note) RMB'000
<b>Non-current liabilities</b>			
Deferred tax liabilities	22	26,281	22,863
Deferred income	23	11,339	11,339
		<b>37,620</b>	34,202
<b>NET ASSETS</b>			
		<b>2,657,416</b>	2,390,264
<b>CAPITAL AND RESERVES</b>			
Share capital	24	1,189,968	1,191,209
Reserves		1,448,084	1,180,931
<b>Total equity attributable to equity shareholders of the Company</b>			
		<b>2,638,052</b>	2,372,140
<b>Non-controlling interests</b>			
		<b>19,364</b>	18,124
<b>TOTAL EQUITY</b>			
		<b>2,657,416</b>	2,390,264

Note: The Group has initially applied HKFRS 15 and HKFRS 9 at 1 January 2018. Under the transition methods chosen, comparative information is not restated. See note 2(c).

Approved and authorised for issue by the board of directors on 20 March 2019.

Zhao Xiaobo  
Qin Xuzhong

)  
)  
)  
)  
)

Directors

The accompanying notes form part of these financial statements.



# CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

For the year ended 31 December 2018  
(Expressed in Renminbi (“RMB”))

	Attributable to equity shareholders of the Company							Total RMB'000	Non- controlling interests RMB'000	Total equity RMB'000
	Share capital RMB'000	Treasury shares RMB'000	Statutory reserves RMB'000	Translation reserve RMB'000	Share-based compensation reserve RMB'000	Other reserves RMB'000	Retained profits RMB'000			
	Note 24 (c)	Note 24 (d)	Note 24 (e)(i)	Note 24 (e)(ii)	Note 24 (e)(iii)	Note 24 (e)(iv)				
<b>Balance at 1 January 2017</b>	1,254,909	(581)	90,937	50,058	24,526	(537,048)	1,305,626	2,188,427	5,691	2,194,118
<b>Changes in equity for 2017:</b>										
Profit for the year	-	-	-	-	-	-	259,358	259,358	3,533	262,891
Other comprehensive income	-	-	-	(9,775)	-	-	-	(9,775)	-	(9,775)
Total comprehensive income for the year	-	-	-	(9,775)	-	-	259,358	249,583	3,533	253,116
Purchase of own shares	-	(82,597)	-	-	-	-	-	(82,597)	-	(82,597)
Cancellation of treasury shares	(82,685)	82,685	-	-	-	-	-	-	-	-
Appropriation to reserves	-	-	29,728	-	-	-	(29,728)	-	-	-
Capital contribution from non-controlling shareholders	-	-	-	-	-	-	-	-	8,900	8,900
Forfeiture of share options	-	-	-	-	(1,200)	-	1,200	-	-	-
Shares issued upon exercise of share options	18,985	-	-	-	(2,258)	-	-	16,727	-	16,727
Balance at 31 December 2017	1,191,209	(493)	120,665	40,283	21,068	(537,048)	1,536,456	2,372,140	18,124	2,390,264

	Attributable to equity shareholders of the Company							Total RMB'000	Non- controlling interests RMB'000	Total equity RMB'000
	Share capital RMB'000	Treasury shares RMB'000	Statutory reserves RMB'000	Translation reserve RMB'000	Share-based compensation reserve RMB'000	Other reserves RMB'000	Retained profits RMB'000			
	Note 24 (c)	Note 24 (d)	Note 24 (e)(i)	Note 24 (e)(ii)	Note 24 (e)(iii)	Note 24 (e)(iv)				
<b>Balance at 1 January 2018</b>	1,191,209	(493)	120,665	40,283	21,068	(537,048)	1,536,456	2,372,140	18,124	2,390,264
<b>Changes in equity for 2018:</b>										
Profit for the year	-	-	-	-	-	-	261,165	261,165	169	261,334
Other comprehensive income	-	-	-	5,495	-	-	-	5,495	71	5,566
Total comprehensive income for the year	-	-	-	5,495	-	-	261,165	266,660	240	266,900
Purchase of own shares	-	(748)	-	-	-	-	-	(748)	-	(748)
Cancellation of treasury shares	(1,241)	1,241	-	-	-	-	-	-	-	-
Appropriation to reserves	-	-	25,632	-	-	-	(25,632)	-	-	-
Capital contribution from non-controlling shareholders	-	-	-	-	-	-	-	-	1,000	1,000
Forfeiture of share options	-	-	-	-	(11,989)	-	11,989	-	-	-
Balance at 31 December 2018	1,189,968	-	146,297	45,778	9,079	(537,048)	1,783,978	2,638,052	19,364	2,657,416

Note: The Group has initially applied HKFRS 15 and HKFRS 9 at 1 January 2018. Under the transition methods chosen, comparative information is not restated. See note 2(c).

The accompanying notes form part of these financial statements.



# CONSOLIDATED CASH FLOW STATEMENT

For the year ended 31 December 2018  
(Expressed in Renminbi (“RMB”))

	Note	2018 RMB'000	2017 (Note) RMB'000
<b>Operating activities</b>			
<b>Profit for the year</b>		<b>261,334</b>	262,891
<b>Adjustments for:</b>			
Income tax		<b>49,749</b>	43,488
Depreciation	6(c)	<b>46,586</b>	34,152
Amortisation of intangible assets and lease prepayment	6(c)	<b>65,602</b>	62,996
Impairment losses on trade and other receivables	6(c)	<b>2,840</b>	25,886
Finance costs	6(a)	<b>10,828</b>	13,500
Interest income	5(a)	<b>(35,198)</b>	(31,317)
Share of losses of associates		<b>561</b>	–
Net (gain)/loss on disposal of property, plant and equipment		<b>(692)</b>	672
Fair value change on trading securities		–	260
Foreign exchange loss/(gain), net		<b>2,458</b>	(1,798)
		<b>404,068</b>	410,730
Decrease/(Increase) in inventories		<b>55,307</b>	(72,575)
Decrease/(Increase) in trade and other receivables		<b>58,625</b>	(209,138)
Increase in contract assets		<b>(368,157)</b>	–
Increase in trade and other payables		<b>65,844</b>	218,412
Increase in contract liabilities		<b>12,293</b>	–
Changes in gross amounts due from/to customers for contract work		–	(213,371)
Decrease in deferred income		–	(954)
<b>Cash generated from operations</b>		<b>227,980</b>	133,104
Income tax paid		<b>(36,088)</b>	(27,537)
<b>Net cash generated from operating activities</b>		<b>191,892</b>	105,567

The accompanying notes form part of these financial statements.



**CONSOLIDATED CASH FLOW STATEMENT**  
For the year ended 31 December 2018  
(Expressed in Renminbi ("RMB"))

	Note	2018 RMB'000	2017 (Note) RMB'000
<b>Investing activities</b>			
Payments for the purchase of property, plant and equipment		(27,084)	(85,708)
Expenditure on purchase of intangible assets		(62,784)	(71,227)
Interest received		30,687	26,812
Proceeds from sale of trading securities		–	5,636
Proceeds from disposal of subsidiary		53,790	–
Payment for investing on associates		(8,500)	–
<b>Net cash used in investing activities</b>		<b>(13,891)</b>	(124,487)
<b>Financing activities</b>			
Proceeds from issuance of shares		–	16,727
Proceeds from loans and borrowings		190,397	175,730
Purchase of own shares		(748)	(82,597)
Repayment of loans and borrowings		(195,826)	(227,021)
Other borrowing costs paid		(8,054)	(10,446)
(Increase)/Decrease in restricted deposit		(17,205)	3,974
Contribution from non-controlling shareholders		1,000	7,180
<b>Net cash used in financing activities</b>		<b>(30,436)</b>	(116,453)
<b>Net increase/(decrease) in cash and cash equivalents</b>		<b>147,565</b>	(135,373)
<b>Cash and cash equivalents at the beginning of the year</b>		<b>520,854</b>	661,415
<b>Effect of foreign exchange rate changes</b>		<b>2,986</b>	(5,188)
<b>Cash and cash equivalents at the end of the year</b>	18	<b>671,405</b>	520,854

Note: The Group has initially applied HKFRS 15 and HKFRS 9 at 1 January 2018. Under the transition methods chosen, comparative information is not restated. See note 2(c).

The accompanying notes form part of these financial statements.



# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)

## 1 GENERAL INFORMATION

Technovator International Limited (the “Company”) was incorporated in Singapore on 25 May 2005 under the name of “Technovator Int Private Ltd.” as an exempted company with limited liability under the Singapore Companies Act (Chapter 50). The name of the Company was changed to Technovator International Limited on 8 September 2011. The Company and its subsidiaries hereinafter are collectively referred to as the “Group”. Technovator is principally engaged in integrated and comprehensive urban smart energy saving services. Its business covers three major segments including smart transportation, smart buildings and complex and smart energy, providing the customers with smart energy management products, solutions and integrated services throughout their full life cycles. The details of the subsidiaries directly or indirectly owned by the Company are set out in note 14.

## 2 SIGNIFICANT ACCOUNTING POLICIES

### (a) Statement of compliance

These financial statements have been prepared in accordance with all applicable Hong Kong Financial Reporting Standards (HKFRSs), which collective term includes all applicable individual Hong Kong Financial Reporting Standards, Hong Kong Accounting Standards (HKASs) and Interpretations issued by the Hong Kong Institute of Certified Public Accountants (HKICPA), accounting principles generally accepted in Hong Kong and the disclosure requirements of the Hong Kong Companies Ordinance. These financial statements also comply with the applicable disclosure provisions of the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited. Significant accounting policies adopted by the Group are disclosed below.

The HKICPA has issued certain new and revised HKFRSs that are first effective or available for early adoption for the current accounting period of the Group and the Company. Note 2(c) provides information on any changes in accounting policies resulting from initial application of these developments to the extent that they are relevant to the Group for the current and prior accounting periods reflected in these financial statements.

### (b) Basis of preparation of the financial statements

The consolidated financial statements for the year ended 31 December 2018 comprise the Group and the Group’s interests in associates.

The measurement basis used in the preparation of the financial statements is the historical cost basis.

The preparation of financial statements in conformity with HKFRSs requires management to make judgements, estimates and assumptions that affect the application of policies and reported amounts of assets, liabilities, income and expenses. The estimates and associated assumptions are based on historical experience and various other factors that are believed to be reasonable under the circumstances, the results of which form the basis of making the judgements about carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates.

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

Judgements made by management in the application of HKFRSs that have significant effect on the financial statements and major sources of estimation uncertainty are discussed in note 29.



## 2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

### (c) Changes in accounting policies

The HKICPA has issued a number of new HKFRSs and amendments to HKFRSs that are first effective for the current accounting period of the Group. Of these, the following developments are relevant to the Group's financial statements:

- (i) HKFRS 9, *Financial instruments*
- (ii) HKFRS 15, *Revenue from contracts with customers*
- (iii) HK(IFRIC) 22, *Foreign currency transactions and advance consideration*

The Group has not applied any new standard or interpretation that is not yet effective for the current accounting period, except for the amendments to HKFRS 9, *Prepayment features with negative compensation* which have been adopted at the same time as HKFRS 9.

#### (i) **HKFRS 9, Financial instruments, including the amendments to HKFRS 9, Prepayment features with negative compensation**

HKFRS 9 replaces HKAS 39, *Financial instruments: recognition and measurement*. It sets out the requirements for recognising and measuring financial assets, financial liabilities and some contracts to buy or sell non-financial items.

The Group has applied HKFRS 9 retrospectively to items that existed at 1 January 2018 in accordance with the transition requirements. The Group has assessed that the transition of HKFRS 9 has no material impact on impairment loss, therefore, the Group does not recognise any cumulative effect of initial application as an adjustment to the opening equity at 1 January 2018, and comparative information continues to be reported under HKAS 39.

Further details of the nature and effect of the changes to previous accounting policies and the transition approach are set out below:

#### a. Classification of financial assets and financial liabilities

HKFRS 9 categories financial assets into three principal classification categories: measured at amortised cost, at fair value through other comprehensive income (FVOCI) and at fair value through profit or loss (FVPL). These supersede HKAS 39's categories of held-to-maturity investments, loans and receivables, available-for-sale financial assets and financial assets measured at FVPL. The classification of financial assets under HKFRS 9 is based on the business model under which the financial asset is managed and its contractual cash flow characteristics.

Currently, the Group does not have financial assets classified as FVOCI or FVPL.



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)

## 2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

### (c) Changes in accounting policies *(Continued)*

#### (i) **HKFRS 9, Financial instruments, including the amendments to HKFRS 9, Prepayment features with negative compensation** *(Continued)*

##### b. Credit losses

HKFRS 9 replaces the “incurred loss” model in HKAS 39 with the “expected credit loss” (“ECL”) model. The ECL model requires an ongoing measurement of credit risk associated with a financial asset and therefore recognises ECLs earlier than under the “incurred loss” accounting model in HKAS 39.

The Group applies the new ECL model to the following items:

- financial assets measured at amortised cost (including cash and cash equivalents, trade and other receivables and long-term receivables); and
- contract assets as defined in HKFRS 15 (see note 2(l));

For further details on the Group’s accounting policy for accounting for credit losses, see note 2(j)(i).

##### c. Transition

Changes in accounting policies resulting from the adoption of HKFRS 9 have been applied retrospectively, except as described below:

- Information relating to comparative periods has not been restated. Differences in the carrying amounts of financial assets resulting from the adoption of HKFRS 9 are recognised in retained earnings and reserves as at 1 January 2018. Accordingly, the information presented for 2017 continues to be reported under HKAS 39 and thus may not be comparable with the current period.
- The following assessment has been made on the basis of the facts and circumstances that existed at 1 January 2018 (the date of initial application of HKFRS 9 by the Group):
  - the determination of the business model within which a financial asset is held.
- If, at the date of initial application, the assessment of whether there has been a significant increase in credit risk since initial recognition would have involved undue cost or effort, a lifetime ECL has been recognised for that financial instrument.



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)

## 2 SIGNIFICANT ACCOUNTING POLICIES (Continued)

### (c) Changes in accounting policies (Continued)

#### (ii) HKFRS 15, Revenue from contracts with customers

HKFRS 15 establishes a comprehensive framework for recognising revenue and some costs from contracts with customers. HKFRS 15 replaces HKAS 18, *Revenue*, which covered revenue arising from sale of goods and rendering of services, and HKAS 11, *Construction contracts*, which specified the accounting for construction projects.

HKFRS 15 also introduces additional qualitative and quantitative disclosure requirements which aim to enable users of the financial statements to understand the nature, amount, timing and uncertainty of revenue and cash flows arising from contracts with customers.

The Group has elected to use the cumulative effect transition method and has recognised the cumulative effect of initial application as an adjustment to the opening balance of equity at 1 January 2018. Therefore, comparative information has not been restated and continues to be reported under HKASs 11 and 18. As allowed by HKFRS 15, the Group has applied the new requirements only to contracts that were not completed before 1 January 2018.

The transition to HKFRS 15 has no material impact on retained earnings at 1 January 2018.

Further details of the nature and effect of the changes on previous accounting policies are set out below:

#### a. Timing of revenue recognition

Previously, revenue arising from construction projects and provision of services was recognised over time, whereas revenue from sale of goods was generally recognised at a point in time when the risks and rewards of ownership of the goods had passed to the customers.

Under HKFRS 15, revenue is recognised when the customer obtains control of the promised good or service in the contract. This may be at a single point in time or over time. HKFRS 15 identifies the following three situations in which control of the promised good or service is regarded as being transferred over time:

- A. When the customer simultaneously receives and consumes the benefits provided by the entity's performance, as the entity performs;
- B. When the entity's performance creates or enhances an asset (for example work in progress) that the customer controls as the asset is created or enhanced;
- C. When the entity's performance does not create an asset with an alternative use to the entity and the entity has an enforceable right to payment for performance completed to date.



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)

## 2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

### (c) Changes in accounting policies *(Continued)*

#### (ii) HKFRS 15, Revenue from contracts with customers *(Continued)*

##### a. Timing of revenue recognition *(Continued)*

If the contract terms and the entity's activities do not fall into any of these 3 situations, then under HKFRS 15 the entity recognises revenue for the sale of that good or service at a single point in time, being when control has passed. Transfer of risks and rewards of ownership is only one of the indicators that is considered in determining when the transfer of control occurs.

The adoption of HKFRS 15 does not have a significant impact on when the Group recognises revenue from construction projects (see note 2(t)(iii)).

##### b. Significant financing component

HKFRS 15 requires an entity to adjust the transaction price for the time value of money when a contract contains a significant financing component, regardless of whether the payments from customers are received significantly in advance of revenue recognition or significantly deferred.

Previously, the Group would only apply such a policy when payments are significantly deferred, which is currently common for Energy Management Contracting ("EMC") projects regarding energy system upgrading or reforming. The Group recognised revenue when the reforming or upgrading project is finished and related control and risk are transferred to customer. As customer will pay for the project by instalments, which cover from 7 years to 20 years, in assessing whether such deferred payments schemes include a significant financing component, the Group has considered the difference between the total amount of instalments due from those customers and the cash selling price, and the length of time between the payment date and the completion date of legal assignment (i.e. the date when the customers obtain control of the properties) based on the typical arrangements entered into with the customers. The Group has assessed that this change in policy does not have significant impact and no opening adjustment was made.

Advance payments are not common in the Group's arrangements with its customers. The Group has assessed that this change in policy does not have significant impact and no opening adjustment was made.



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)

## 2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

### (c) Changes in accounting policies *(Continued)*

#### (ii) HKFRS 15, Revenue from contracts with customers *(Continued)*

- c. Presentation of contract assets and liabilities
- Under HKFRS 15, a receivable is recognised only if the Group has an unconditional right to consideration. If the Group recognises the related revenue (see note 2(t)) before being unconditionally entitled to the consideration for the promised goods and services in the contract, then the entitlement to consideration is classified as a contract asset. Similarly, a contract liability, rather than a payable, is recognised when a customer pays consideration, or is contractually required to pay consideration and the amount is already due, before the Group recognises the related revenue. For a single contract with the customer, either a net contract asset or a net contract liability is presented. For multiple contracts, contract assets and contract liabilities of unrelated contracts are not presented on a net basis (see note 2(l)).

Previously, projects balances relating to construction projects in progress were presented in the statement of financial position under “trade and other receivables”, “trade and other payables”, or “Gross amounts due from/to customers for contract work”, respectively, and construction costs incurred related to future activities on the contract, which mainly include materials that have been delivered to a construction site for use in a contract but not yet installed, used or applied during contract performance, are recognised as “Gross amounts due from customers for contract work”.

To reflect these changes in presentation, the Group has made the following adjustments at 1 January 2018, as a result of the adoption of HKFRS 15:

- (i) “Gross amounts due from customers for contract work” amounting to RMB427,515,000, which was previously included in gross amounts due from customers for contract work is now included under contract assets;
- (ii) “Gross amounts due from customers from contract work” amounting to RMB471,809,000, which related to uninstalled materials that have been delivered to a construction site for use in a contract, but the control has not been transferred to customers, are now included under inventories
- (iii) “Gross amounts due to customers for contract work” amounting to RMB15,507,000, are now included under contract liabilities; and
- (iv) “Receipts in advance” amounting to RMB83,855,000, which was previously included in trade and other payables is now included under contract liabilities.



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)

## 2 SIGNIFICANT ACCOUNTING POLICIES (Continued)

### (c) Changes in accounting policies (Continued)

#### (ii) HKFRS 15, Revenue from contracts with customers (Continued)

- d. Disclosure of the estimated impact on the amounts reported in respect of the year ended 31 December 2018 as a result of the adoption of HKFRS 15 on 1 January 2018.

The following tables summarise the estimated impact of adoption of HKFRS 15 on the Group's consolidated financial statements for the year ended 31 December 2018, by comparing the amounts reported under HKFRS 15 in these consolidated financial statements with estimates of the hypothetical amounts that would have been recognised under HKAS 18 and HKAS 11 if those superseded standards had continued to apply to 2018 instead of HKFRS 15. These tables show only those line items impacted by the adoption of HKFRS 15:

	Amounts reported in accordance with HKFRS 15 (A) RMB'000	Hypothetical amounts under HKASs18 and 11 (B) RMB'000	Difference: Estimated impact of adoption of HKFRS 15 on 2018 (A)-(B) RMB'000
<b>Line items in the consolidated statement of financial position as at 31 December 2018 impacted by the adoption of HKFRS 15:</b>			
Inventories	792,027	373,222	418,805
Contract assets	795,672	-	795,672
Gross amount due from customers for contract work	-	1,214,477	(1,214,477)
<b>Total current assets</b>	<b>3,486,046</b>	<b>3,486,046</b>	<b>-</b>
Trade and other payables	1,523,416	1,621,750	(98,334)
Contract liabilities	111,655	-	111,655
Gross amount due to customers for contract work	-	13,321	(13,321)
<b>Total current liabilities</b>	<b>1,915,927</b>	<b>1,915,927</b>	<b>-</b>
<b>Net current assets</b>	<b>1,570,119</b>	<b>1,570,119</b>	<b>-</b>
<b>Total assets less current liabilities</b>	<b>2,695,036</b>	<b>2,695,036</b>	<b>-</b>
<b>Total non-current liabilities</b>	<b>37,620</b>	<b>37,620</b>	<b>-</b>
<b>Net assets</b>	<b>2,657,416</b>	<b>2,657,416</b>	<b>-</b>
<b>Total equity attributable to equity shareholders of the Company</b>	<b>2,638,052</b>	<b>2,638,052</b>	<b>-</b>
<b>Total equity</b>	<b>2,657,416</b>	<b>2,657,416</b>	<b>-</b>



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)

## 2 SIGNIFICANT ACCOUNTING POLICIES (Continued)

### (c) Changes in accounting policies (Continued)

#### (ii) HKFRS 15, Revenue from contracts with customers (Continued)

##### d. (Continued)

	Amounts reported in accordance with HKFRS 15 (A) RMB'000	Hypothetical amounts under HKASs18 and 11 (B) RMB'000	Difference: Estimated impact of adoption of HKFRS 15 on 2018 (A)-(B) RMB'000
<b>Line items in the reconciliation of profit for the year to cash generated from operations for year ended 31 December 2018 impacted by the adoption of HKFRS 15:</b>			
Decrease in inventories	55,307	2,303	53,004
Decrease in trade and other receivables	58,625	58,625	-
Increase in contract assets	(368,157)	-	(368,157)
Increase in trade and other payables	65,844	80,323	(14,479)
Increase in contract liabilities	12,293	-	12,293
Changes in gross amounts due from/to customers for contract work	-	(317,339)	317,339

The significant differences arise as a result of the changes in accounting policies described above.

#### (iii) HK(IFRIC) 22, Foreign currency transactions and advance consideration

This interpretation provides guidance on determining “the date of the transaction” for the purpose of determining the exchange rate to use on initial recognition of the related asset, expense or income (or part of it) arising from a transaction in which an entity receives or pays advance consideration in a foreign currency.

The Interpretation clarifies that “the date of the transaction” is the date on initial recognition of the non-monetary asset or liability arising from the payment or receipt of advance consideration. If there are multiple payments or receipts in advance of recognising the related item, the date of the transaction for each payment or receipt should be determined in this way. The adoption of HK(IFRIC) 22 does not have any material impact on the financial position and the financial result of the Group.



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018

(Expressed in RMB unless otherwise indicated)

## 2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

### (d) **Subsidiaries and non-controlling interests**

Subsidiaries are entities controlled by the Group. The Group controls an entity when it is exposed, or has rights, to variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. When assessing whether the Group has power, only substantive rights (held by the Group and other parties) are considered.

An investment in a subsidiary is consolidated into the consolidated financial statements from the date that control commences until the date that control ceases. Intra-group balances and transactions and cash flows and any unrealised profits arising from intra-group transactions are eliminated in full in preparing the consolidated financial statements. Unrealised losses resulting from intra-group transactions are eliminated in the same way as unrealised gains but only to the extent that there is no evidence of impairment.

Non-controlling interests represent the equity in a subsidiary not attributable directly or indirectly to the Company, and in respect of which the Group has not agreed any additional terms with the holders of those interests which would result in the Group as a whole having a contractual obligation in respect of those interests that meets the definition of a financial liability. For each business combination, the Group can elect to measure any non-controlling interests either at fair value or at the non-controlling interests' proportionate share of the subsidiary's net identifiable assets.

Non-controlling interests are presented in the consolidated statement of financial position within equity, separately from equity attributable to the equity shareholders of the Company. Non-controlling interests in the results of the Group are presented on the face of the consolidated income statement and the consolidated income statement and other comprehensive income as an allocation of the total profit or loss and total comprehensive income for the year between non-controlling interests and the equity shareholders of the Company. Loans from holders of non-controlling interests and other contractual obligations towards these holders are presented as financial liabilities in the consolidated statement of financial position in accordance with notes 2(n) and 2(o), depending on the nature of liability.

Changes in the Group's interests in a subsidiary that do not result in a loss of control are accounted for as equity transactions, whereby adjustments are made to the amounts of controlling and non-controlling interests within consolidated equity to reflect the change in relative interests, but no adjustments are made to goodwill and no gain or loss is recognised.

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

In the Company's statement of financial position, an investment in a subsidiary is stated at cost less impairment losses (see note 2(j)(ii)).



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)

## 2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

### (e) Associates

An associate is an entity in which the Group or Company has significant influence, but not control or joint control, over its management, including participation in the financial and operating policy decisions.

An investment in an associate is accounted for in the consolidated financial statements under the equity method. Under the equity method, the investment is initially recorded at cost, adjusted for any excess of the Group's share of the acquisition-date fair values of the investee's identifiable net assets over the cost of the investment (if any). The cost of the investment includes purchase price, other costs directly attributable to the acquisition of the investment, and any direct investment into the associate that forms part of the Group's equity investment. Thereafter, the investment is adjusted for the post acquisition change in the Group's share of the investee's net assets and any impairment loss relating to the investment (see note 2(j)(ii)). Any acquisition-date excess over cost, the Group's share of the post-acquisition, post-tax results of the investees and any impairment losses for the year are recognised in the consolidated income statement, whereas the Group's share of the post-acquisition post-tax items of the investees' other comprehensive income is recognised in the consolidated income statement and other comprehensive income.

When the Group's share of losses exceeds its interest in the associate, the Group's interest is reduced to nil and recognition of further losses is discontinued except to the extent that the Group has incurred legal or constructive obligations or made payments on behalf of the investee. For this purpose, the Group's interest is the carrying amount of the investment under the equity method together with any other long-term interests that in substance form part of the Group's net investment in the associate.

Unrealised profits and losses resulting from transactions between the Group and its associates are eliminated to the extent of the Group's interest in the investee, except where unrealised losses provide evidence of an impairment of the asset transferred, in which case they are recognised immediately in the consolidated income statement.

In the Company's statement of financial position, investment in associates is stated at cost less impairment losses (see note 2(j)(ii)).

### (f) Other investments in debt and equity securities

The Group's and the Company's policies for investments in debt and equity securities, other than investments in subsidiaries, associates and joint ventures, are set out below:

Investments in debt and equity securities are recognised/derecognised on the date the Group commits to purchase/sell the investment. The investments are initially stated at fair value plus directly attributable transaction costs, except for those investments measured at fair value through profit or loss (FVPL) for which transaction costs are recognised directly in the income statement. These investments are subsequently accounted for as follows, depending on their classification. Currently, the Group does not have financial assets classified as FVPL or FVOCI.



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)

## 2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

### (f) Other investments in debt and equity securities *(Continued)*

#### (A) Policy applicable from 1 January 2018

##### *Investments other than equity investments*

Non-equity investments held by the Group are classified into one of the following measurement categories:

- amortised cost, if the investment is held for the collection of contractual cash flows which represent solely payments of principal and interest. Interest income from the investment is calculated using the effective interest method (see note 2(t)(v)).
- fair value through other comprehensive income (FVOCI) – recycling, if the contractual cash flows of the investment comprise solely payments of principal and interest and the investment is held within a business model whose objective is achieved by both the collection of contractual cash flows and sale. Changes in fair value are recognised in other comprehensive income, except for the recognition in the income statement of expected credit losses, interest income (calculated using the effective interest method) and foreign exchange gains and losses. When the investment is derecognised, the amount accumulated in other comprehensive income is recycled from equity to profit or loss.
- fair value at profit or loss (FVPL) if the investment does not meet the criteria for being measured at amortised cost or FVOCI (recycling). Changes in the fair value of the investment (including interest) are recognised in the income statement.

##### *Equity investments*

An investment in equity securities is classified as FVPL unless the equity investment is not held for trading purposes and on initial recognition of the investment the Group makes an election to designate the investment at FVOCI (non-recycling) such that subsequent changes in fair value are recognised in other comprehensive income. Such elections are made on an instrument-by-instrument basis, but may only be made if the investment meets the definition of equity from the issuer's perspective. Where such an election is made, the amount accumulated in other comprehensive income remains in the fair value reserve (non-recycling) until the investment is disposed of. At the time of disposal, the amount accumulated in the fair value reserve (non-recycling) is transferred to retained earnings. It is not recycled through the income statement. Dividends from an investment in equity securities, irrespective of whether classified as at FVPL or FVOCI, are recognised in the income statement as other income in accordance with the policy set out in note 2(t)(iv).

#### (B) Policy applicable prior to 1 January 2018

Investments in securities held for trading were classified as financial assets measured at FVPL. Any attributable transaction costs were recognised in the income statement as incurred. At the end of each reporting period the fair value was remeasured, with any resultant gain or loss being recognised in the income statement.

Dated debt securities that the Group had the positive ability and intention to hold to maturity were classified as held-to-maturity securities. Held-to-maturity securities were stated at amortised cost (for impairment see note 2(j)(i) – policy applicable prior to 1 January 2018).



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)

## 2 SIGNIFICANT ACCOUNTING POLICIES (Continued)

### (f) Other investments in debt and equity securities (Continued)

#### (B) Policy applicable prior to 1 January 2018 (Continued)

Investments which did not fall into any of the above categories were classified as available-for-sale financial assets. At the end of each reporting period the fair value was remeasured, with any resultant gain or loss being recognised in other comprehensive income and accumulated separately in equity in the fair value reserve (recycling). Dividend income from equity investments and interest income from debt securities calculated using the effective interest method were recognised in the income statement in accordance with the policies set out in notes 2(t)(iv) and 2(t)(v), respectively. Foreign exchange gains and losses arising from debt securities were also recognised in the income statement. When the investments were derecognised or impaired (see note 2(j)(i) – policy applicable prior to 1 January 2018), the cumulative gain or loss recognised in equity was reclassified to the income statement.

### (g) Property, plant and equipment

Items of property, plant and equipment are stated at cost less accumulated depreciation and impairment losses (see note 2(j)).

The cost of self-constructed items of property, plant and equipment includes the cost of materials, direct labour, the initial estimate, where relevant, of the costs of dismantling and removing the items and restoring the site on which they are located, and an appropriate proportion of production overheads and borrowing costs (see note 2(v)).

Gains or losses arising from the retirement or disposal of an item of property, plant and equipment are determined as the difference between the net disposal proceeds and the carrying amount of the item and are recognised in the income statement on the date of retirement or disposal.

Depreciation is calculated to write off the cost or valuation of items of property, plant and equipment, less their estimated residual value, if any, using the straight line method over their estimated useful lives as follows:

– Leasehold improvements	The shorter of the remaining term of the lease or 5 years
– Furniture and fittings	5 to 10 years
– Computers and office equipment	3 to 10 years
– Plant and machinery	5 to 12 years
– Motor vehicles	5 to 10 years

When parts of an item of property, plant and equipment have different useful lives, the cost of the item is allocated on a reasonable basis between the parts and each part is depreciated separately. Both the useful life of an asset and its residual value, if any, are reviewed annually.



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018

(Expressed in RMB unless otherwise indicated)

## 2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

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

Expenditure on an internal research and development projects is distinguished between the expenditures during the research phase and expenditures during the development phase. Research activities involve original and planned investigation undertaken with the prospect of gaining new scientific or technical knowledge and understanding. Development activities involve a plan or design for the production of new or substantially improved materials, devices, products or processes before the start of commercial production or use.

Expenditure on research activities is recognised as an expense in the period in which it is incurred. Expenditure on development activities is capitalised if the product or process is technically and commercially feasible and the Group has sufficient resources and the intention to complete development. The expenditure capitalised includes the costs of materials, direct labour, and an appropriate proportion of overheads and borrowing costs, where applicable (see note 2(v)). Capitalised development costs are stated at cost less accumulated amortisation and impairment losses (see note 2(j)). Other development expenditure is recognised as an expense in the period in which it is incurred.

Other intangible assets that are acquired by the Group are stated at cost less accumulated amortisation (where the estimated useful life is finite) and impairment losses (see note 2(j)). Expenditure on internally generated goodwill and brands is recognised as an expense in the period in which it is incurred.

Amortisation of intangible assets with finite useful lives is charged to the income statement on a straight-line basis over the assets' estimated useful lives. Other than certain trade name which has indefinite useful life, the following intangible assets with finite useful lives are amortised from the date they are available for use and their estimated useful lives are as follows:

– Patents and technology know-how	5 years
– Trade name	5 years

Both the period and method of amortisation are reviewed annually.

Intangible assets are not amortised while their useful lives are assessed to be indefinite. Any conclusion that the useful life of an intangible asset is indefinite is reviewed annually to determine whether events and circumstances continue to support the indefinite useful life assessment for that asset. If they do not, the change in the useful life assessment from indefinite to finite is accounted for prospectively from the date of change and in accordance with the policy for amortisation of intangible assets with finite lives as set out above.



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)

## 2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

### (i) **Leased assets**

An arrangement, comprising a transaction or a series of transactions, is or contains a lease if the Group determines that the arrangement conveys a right to use a specific asset or assets for an agreed period of time in return for a payment or a series of payments. Such a determination is made based on an evaluation of the substance of the arrangement and is regardless of whether the arrangement takes the legal form of a lease.

#### *(i) Classification of assets leased to the Group*

Assets that are held by Group under leases which transfer to the Group substantially all the risks and rewards of ownership are classified as being held under finance leases. Leases which do not transfer substantially all the risks and rewards of ownership to the Group are classified as operating leases.

#### *(ii) Assets acquired under finance leases*

Where the Group acquires the use of assets under finance leases, the amounts representing the fair value of the leased asset, or, if lower, the present value of the minimum lease payments, of such assets are recognised as property, plant and equipment and the corresponding liabilities, net of finance charges, are recorded as obligations under finance leases. Depreciation is provided at rates which write off the cost or valuation of the assets over the term of the relevant lease or, where it is likely the Group will obtain ownership of the asset, the life of the asset, as set out in note 2(g). Impairment losses are accounted for in accordance with the accounting policy as set out in note 2(j). Finance charges implicit in the lease payments are charged to the income statement over the period of the leases so as to produce an approximately constant periodic rate of charge on the remaining balance of the obligations for each accounting period. Contingent rentals are charged to the income statement in the accounting period in which they are incurred.

#### *(iii) Operating lease charges*

Where the Group has the use of assets held under operating leases, payments made under the leases are charged to the income statement in equal instalments over the accounting periods covered by the lease term, except where an alternative basis is more representative of the pattern of benefits to be derived from the leased asset. Lease incentives received are recognised in the income statement as an integral part of the aggregate net lease payments made. Contingent rentals are charged to the income statement in the accounting period in which they are incurred.



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)

## 2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

### (j) Credit losses and impairment of assets

#### (i) Credit losses from financial instruments and contract assets

##### (A) Policy applicable from 1 January 2018

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

- financial assets measured at amortised cost (including cash and cash equivalents, trade and other receivables, and long-term receivables); and
- contract assets as defined in HKFRS 15 (see note 2(l));

##### *Measurement of ECLs*

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

The expected cash shortfalls are discounted using the following discount rates where the effect of discounting is material:

- fixed-rate financial assets, trade and other receivables, contract assets and long-term receivables: effective interest rate determined at initial recognition or an approximation thereof; and
- variable-rate financial assets: current effective interest rate;

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

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

ECLs are measured on either of the following bases:

- 12-month ECLs: these are losses that are expected to result from possible default events within the 12 months after the reporting date; and
- lifetime ECLs: these are losses that are expected to result from all possible default events over the expected lives of the items to which the ECL model applies.



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)

## 2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

### (j) Credit losses and impairment of assets *(Continued)*

#### (i) Credit losses from financial instruments and contract assets *(Continued)*

##### (A) Policy applicable from 1 January 2018 *(Continued)*

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

For all other financial instruments (including loan commitments issued), the Group recognises a loss allowance equal to 12-month ECLs unless there has been a significant increase in credit risk of the financial instrument since initial recognition, in which case the loss allowance is measured at an amount equal to lifetime ECLs.

#### *Significant increases in credit risk*

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

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

- failure to make payments of principal or interest on their contractually due dates;
- an actual or expected significant deterioration in a financial instrument's external or internal credit rating (if available);
- an actual or expected significant deterioration in the operating results of the debtor; and
- existing or forecast changes in the technological, market, economic or legal environment that have a significant adverse effect on the debtor's ability to meet its obligation to the Group.

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



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)

## 2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

### (j) Credit losses and impairment of assets *(Continued)*

#### (i) Credit losses from financial instruments and contract assets *(Continued)*

##### (A) Policy applicable from 1 January 2018 *(Continued)*

ECLs are remeasured at each reporting date to reflect changes in the financial instrument's credit risk since initial recognition. Any change in the ECL amount is recognised as an impairment gain or loss in the income statement. The Group recognises an impairment gain or loss for all financial instruments with a corresponding adjustment to their carrying amount through a loss allowance account, except for investments in debt securities that are measured at FVOCI (recycling), for which the loss allowance is recognised in other comprehensive income and accumulated in the fair value reserve (recycling).

##### *Basis of calculation of interest income*

Interest income recognised in accordance with note 2(t)(v) is calculated based on the gross carrying amount of the financial asset unless the financial asset is credit-impaired, in which case interest income is calculated based on the amortised cost (i.e. the gross carrying amount less loss allowance) of the financial asset.

At each reporting date, the Group assesses whether a financial asset is credit-impaired. A financial asset is credit-impaired when one or more events that have a detrimental impact on the estimated future cash flows of the financial asset have occurred.

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

- significant financial difficulties of the debtor;
- a breach of contract, such as a default or delinquency in interest or principal payments;
- it becoming probable that the borrower will enter into bankruptcy or other financial reorganisation;
- significant changes in the technological, market, economic or legal environment that have an adverse effect on the debtor; or
- the disappearance of an active market for a security because of financial difficulties of the issuer.

##### *Write-off policy*

The gross carrying amount of a financial asset or contract asset is written off (either partially or in full) to the extent that there is no realistic prospect of recovery. This is generally the case when the Group determines that the debtor does not have assets or sources of income that could generate sufficient cash flows to repay the amounts subject to the write-off.

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



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)

## 2 SIGNIFICANT ACCOUNTING POLICIES (Continued)

### (j) Credit losses and impairment of assets (Continued)

#### (i) Credit losses from financial instruments and contract assets (Continued)

##### (B) Policy applicable prior to 1 January 2018

Prior to 1 January 2018, an “incurred loss” model was used to measure impairment losses on financial assets not classified as at FVPL (e.g. trade and other receivables). Under the “incurred loss” model, an impairment loss was recognised only when there was objective evidence of impairment. Objective evidence of impairment included:

- significant financial difficulties of the debtor;
- a breach of contract, such as a default or delinquency in interest or principal payments;
- it becoming probable that the debtor will enter bankruptcy or other financial reorganisation; and
- significant changes in the technological, market, economic or legal environment that have an adverse effect on the debtor.

If any such evidence existed, an impairment loss was determined and recognised as follows:

- For trade and other receivables and other financial assets carried at amortised cost, impairment loss was measured as the difference between the asset’s carrying amount and the present value of estimated future cash flows, discounted at the financial asset’s original effective interest rate, where the effect of discounting was material. This assessment was made collectively where these financial assets shared similar risk characteristics, such as similar past due status, and had not been individually assessed as impaired. Future cash flows for financial assets which were assessed for impairment collectively were based on historical loss experience for assets with credit risk characteristics similar to the collective group.

If in a subsequent period the amount of an impairment loss decreased and the decrease could be linked objectively to an event occurring after the impairment loss was recognised, the impairment loss was reversed through the income statement. A reversal of an impairment loss was only recognised to the extent that it did not result in the asset’s carrying amount exceeding that which would have been determined had no impairment loss been recognised in prior years.

When the recovery of a trade debtor or other financial assets carried at amortised cost was considered doubtful but not remote, associated impairment losses were recorded using an allowance account. When the Group was satisfied that recovery was remote, the amount considered irrecoverable was written off against the gross carrying amount of those assets directly. Subsequent recoveries of amounts previously charged to the allowance account were reversed against the allowance account. Other changes in the allowance account and subsequent recoveries of amounts previously written off directly were recognised in the income statement.



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018

(Expressed in RMB unless otherwise indicated)

## 2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

### (j) **Credit losses and impairment of assets** *(Continued)*

#### (ii) **Impairment of other non-current assets**

Internal and external sources of information are reviewed at the end of each reporting period to identify indications that the following assets may be impaired or, except in the case of goodwill, an impairment loss previously recognised no longer exists or may have decreased:

- property, plant and equipment;
- intangible assets; and
- investments in subsidiaries and associates in the Company's statement of financial position.

If any such indication exists, the asset's recoverable amount is estimated. In addition, for goodwill, intangible assets that are not yet available for use and intangible assets that have indefinite useful lives, the recoverable amount is estimated annually whether or not there is any indication of impairment.

- **Calculation of recoverable amount**  
The recoverable amount of an asset is the greater of its fair value less costs of disposal and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. Where an asset does not generate cash inflows largely independent of those from other assets, the recoverable amount is determined for the smallest group of assets that generates cash inflows independently (i.e. a cash-generating unit).
- **Recognition of impairment losses**  
An impairment loss is recognised in the income statement if the carrying amount of an asset, or the cash-generating unit to which it belongs, exceeds its recoverable amount. Impairment losses recognised in respect of cash-generating units are allocated, to reduce the carrying amount of the other assets in the unit (or group of units) on a pro rata basis, except that the carrying value of an asset will not be reduced below its individual fair value less costs of disposal (if measurable) or value in use (if determinable).
- **Reversals of impairment losses**  
An impairment loss is reversed if there has been a favourable change in the estimates used to determine the recoverable amount.

A reversal of an impairment loss is limited to the asset's carrying amount that would have been determined had no impairment loss been recognised in prior years. Reversals of impairment losses are credited to the income statement in the year in which the reversals are recognised.



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)

## 2 SIGNIFICANT ACCOUNTING POLICIES (Continued)

### (k) Inventories and other contract costs

#### (i) Inventories

Inventories are carried at the lower of cost and net realisable value.

Cost is calculated using the weighted average cost formula and comprises all cost of purchase and other costs incurred in bringing the inventories to their present location and condition.

Net realisable value is the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale.

When inventories are sold, the carrying amount of those inventories is recognised as an expense in the period in which the related revenue is recognised.

The amount of any write-down of inventories to net realisable value and all losses of inventories are recognised as an expense in the period the write-down or loss occurs. The amount of any reversal of any write-down of inventories is recognised as a reduction in the amount of inventories recognised as an expense in the period in which the reversal occurs.

#### (ii) Other contract costs

Other contract costs are either the incremental costs of obtaining a contract with a customer or the costs to fulfil a contract with a customer which are not capitalised as inventory (see note 2(k)(i)), property, plant and equipment (see note 2(g)) or intangible assets (see note 2(h)).

Incremental costs of obtaining a contract are those costs that the Group incurs to obtain a contract with a customer that it would not have incurred if the contract had not been obtained e.g. an incremental sales commission. Incremental costs of obtaining a contract are capitalised when incurred if the costs relate to revenue which will be recognised in a future reporting period and the costs are expected to be recovered. Other costs of obtaining a contract are expensed when incurred.

Costs to fulfil a contract are capitalised if the costs relate directly to an existing contract or to a specifically identifiable anticipated contract; generate or enhance resources that will be used to provide goods or services in the future; and are expected to be recovered. Costs that relate directly to an existing contract or to a specifically identifiable anticipated contract may include direct labour, direct materials, allocations of costs, costs that are explicitly chargeable to the customer and other costs that are incurred only because the Group entered into the contract (for example, payments to sub-contractors). Other costs of fulfilling a contract, which are not capitalised as inventory, property, plant and equipment or intangible assets, are expensed as incurred.

Capitalised contract costs are stated at cost less accumulated amortisation and impairment losses. Impairment losses are recognised to the extent that the carrying amount of the contract cost asset exceeds the net of (i) remaining amount of consideration that the Group expects to receive in exchange for the goods or services to which the asset relates, less (ii) any costs that relate directly to providing those goods or services that have not yet been recognised as expenses.

Amortisation of capitalised contract costs is charged to the income statement when the revenue to which the asset relates is recognised. The accounting policy for revenue recognition is set out in note 2(t).



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)

## 2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

### (l) **Contract assets and contract liabilities**

A contract asset is recognised when the Group recognises revenue (see note 2(t)) before being unconditionally entitled to the consideration under the payment terms set out in the contract. Contract assets are assessed for expected credit losses (ECL) in accordance with the policy set out in note 2(j)(i) and are reclassified to receivables when the right to the consideration has become unconditional (see note 2(m)).

A contract liability is recognised when the customer pays consideration before the Group recognises the related revenue (see note 2(t)). A contract liability would also be recognised if the Group has an unconditional right to receive consideration before the Group recognises the related revenue. In such cases, a corresponding receivable would also be recognised (see note 2(m)).

For a single contract with the customer, either a net contract asset or a net contract liability is presented. For multiple contracts, contract assets and contract liabilities of unrelated contracts are not presented on a net basis.

When the contract includes a significant financing component, the contract balance includes interest accrued under the effective interest method (see note 2(t)).

#### ***Policy prior to 1 January 2018***

In the comparative period, construction contracts in progress at the end of the reporting period were recorded in the statement of financial position at the net amount of costs incurred plus recognised profit less recognised losses and progress billings. These net balances were presented as the “gross amount due from customers for contract work” (as an asset) or the “gross amount due to customers for contract work” (as a liability), as applicable. Progress billings not yet paid by the customer were included in the statement of financial position under “trade and other receivables”. These balances have been reclassified on 1 January 2018 as shown in note 16 (see note 2(c)(ii)).

### (m) **Trade and other receivables**

A receivable is recognised when the Group has an unconditional right to receive consideration. A right to receive consideration is unconditional if only the passage of time is required before payment of that consideration is due. If revenue has been recognised before the Group has an unconditional right to receive consideration, the amount is presented as a contract asset (see note 2(l)).

Receivables are stated at amortised cost using the effective interest method less allowance for credit losses (see note 2(j)(i)).

### (n) **Interest-bearing borrowings**

Interest-bearing borrowings are recognised initially at fair value less transaction costs. Subsequent to initial recognition, interest-bearing borrowings are stated at amortised cost using the effective interest method. Interest expense is recognised in accordance with the Group’s accounting policy for borrowing costs (see note 2(v)).



## 2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

**(o) Trade and other payables**

Trade and other payables are initially recognised at fair value. Trade and other payables are subsequently stated at amortised costs unless the effect of discounting would be immaterial, in which case they are stated at cost.

**(p) Cash and cash equivalents**

Cash and cash equivalents comprise cash at bank and on hand, demand deposits with banks and other financial institutions, and short-term, highly liquid investments that are readily convertible into known amounts of cash and which are subject to an insignificant risk of changes in value, having been within three months of maturity at acquisition. Bank overdrafts that are repayable on demand and form an integral part of the Group's cash management are also included as a component of cash and cash equivalents for the purpose of the consolidated cash flow statement. Cash and cash equivalents are assessed for expected credit losses (ECL) in accordance with the policy set out in note 2(j)(i).

**(q) Employee benefits**

***(i) Short-term employee benefits and contributions to defined contribution retirement plans***

Salaries, annual bonuses, paid annual leave, contributions to defined contribution retirement plans and the cost of non-monetary benefits are accrued in the year in which the associated services are rendered by employees. Where payment or settlement is deferred and the effect would be material, these amounts are stated at their present values.

***(ii) Share-based payments***

The fair value of share options granted to employees is recognised as an employee cost with a corresponding increase in the share-based compensation reserve within equity. The fair value is measured at grant date using the binomial option pricing model and/or Black-Scholes option pricing model, taking into account the terms and conditions upon which the options were granted. Where the employees have to meet vesting conditions before becoming unconditionally entitled to the options, the total estimated fair value of the options is spread over the vesting period, taking into account the probability that the options will vest.

During the vesting period, the number of share options that is expected to vest is reviewed. Any resulting adjustment to the cumulative fair value recognised in prior years is charged/credited to the income statement for the year of the review, unless the original employee expenses qualify for recognition as an asset, with a corresponding adjustment to the share-based compensation reserve. On vesting date, the amount recognised as an expense is adjusted to reflect the actual number of options that vest (with a corresponding adjustment to the share-based compensation reserve) except where forfeiture is only due to not achieving vesting conditions that relate to the market price of the Company's shares. The equity amount is recognised in the share-based compensation reserve until either the option is exercised (when it is transferred to the share capital) or the option expires (when it is released directly to retained profits).

***(iii) Termination benefits***

Termination benefits are recognised at the earlier of when the Group can no longer withdraw the offer of those benefits and when it recognises restructuring costs involving the payment of termination benefits.



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018

(Expressed in RMB unless otherwise indicated)

## 2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

### (r) **Income tax**

Income tax for the year comprises current tax and movements in deferred tax assets and liabilities. Current tax and movements in deferred tax assets and liabilities are recognised in the income statement except to the extent that they relate to a business combination or items recognised in other comprehensive income or directly in equity, in which case the relevant amounts of tax are recognised in other comprehensive income or directly in equity, respectively.

Current tax is the expected tax payable on the taxable income for the year, using tax rates enacted or substantially enacted at the end of the reporting period, and any adjustment to tax payable in respect of previous years.

Deferred tax assets and liabilities arise from deductible and taxable temporary differences respectively, being the differences between the carrying amounts of assets and liabilities for financial reporting purposes and their tax bases. Deferred tax assets also arise from unused tax losses and unused tax credits.

Apart from certain limited exceptions, all deferred tax liabilities, and all deferred tax assets to the extent that it is probable that future taxable profits will be available against which the asset can be utilised, are recognised. Future taxable profits that may support the recognition of deferred tax assets arising from deductible temporary differences include those that will arise from the reversal of existing taxable temporary differences, provided those differences relate to the same taxation authority and the same taxable entity, and are expected to reverse either in the same period as the expected reversal of the deductible temporary difference or in periods into which a tax loss arising from the deferred tax asset can be carried back or forward. The same criteria are adopted when determining whether existing taxable temporary differences support the recognition of deferred tax assets arising from unused tax losses and credits, that is, those differences are taken into account if they relate to the same taxation authority and the same taxable entity, and are expected to reverse in a period, or periods, in which the tax loss or credit can be utilised.

The limited exceptions to recognition of deferred tax assets and liabilities are those temporary differences arising from goodwill not deductible for tax purposes, the initial recognition of assets or liabilities that affect neither accounting nor taxable profit (provided that they are not part of a business combination), and temporary differences relating to investments in subsidiaries to the extent that, in the case of taxable differences, the Group controls the timing of reversal and it is probable that the differences will not reverse in the foreseeable future, or in the case of deductible differences, unless it is probable that they will reverse in the future.

The amount of deferred tax recognised is measured based on the expected manner of realisation or settlement of the carrying amount of the assets and liabilities, using tax rates enacted or substantively enacted at the end of the reporting period. Deferred tax assets and liabilities are not discounted.

The carrying amount of a deferred tax asset is reviewed at the end of each reporting period and is reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow the related tax benefit to be utilised. Any such reduction is reversed to the extent that it becomes probable that sufficient taxable profits will be available.



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)

## 2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

### (r) **Income tax** *(Continued)*

Current tax balances and deferred tax balances, and movements therein, are presented separately from each other and are not offset. Current tax assets are offset against current tax liabilities, and deferred tax assets against deferred tax liabilities, if the Company or the Group has the legally enforceable right to set off current tax assets against current tax liabilities and the following additional conditions are met:

- in the case of current tax assets and liabilities, the Company or the Group intends either to settle on a net basis, or to realise the asset and settle the liability simultaneously; or
- in the case of deferred tax assets and liabilities, if they relate to income taxes levied by the same taxation authority on either:
  - the same taxable entity; or
  - different taxable entities, which, in each future period in which significant amounts of deferred tax liabilities or assets are expected to be settled or recovered, intend to realise the current tax assets and settle the current tax liabilities on a net basis or realise and settle simultaneously.

### (s) **Provisions and contingent liabilities**

#### ***(i) Provisions and contingent liabilities***

Provisions are recognised when the Group has a legal or constructive obligation arising as a result of a past event, it is probable that an outflow of economic benefits will be required to settle the obligation and a reliable estimate can be made. Where the time value of money is material, provisions are stated at the present value of the expenditure expected to settle the obligation.

Where it is not probable that an outflow of economic benefits will be required, or the amount cannot be estimated reliably, the obligation is disclosed as a contingent liability, unless the probability of outflow of economic benefits is remote. Possible obligations, whose existence will only be confirmed by the occurrence or non-occurrence of one or more future events are also disclosed as contingent liabilities unless the probability of outflow of economic benefits is remote.

#### ***(ii) Onerous contracts***

An onerous contract exists when the Group has a contract under which the unavoidable costs of meeting the obligations under the contract exceed the economic benefits expected to be received from the contract. Provisions for onerous contracts are measured at the present value of the lower of the expected cost of terminating the contract and the net cost of continuing with the contract.

#### ***(iii) Contingent liabilities assumed in business combinations***

Contingent liabilities assumed in a business combination which are present obligations at the date of acquisition are initially recognised at fair value, provided the fair value can be reliably measured. After their initial recognition at fair value, such contingent liabilities are recognised at the higher of the amount initially recognised, less accumulated amortisation where appropriate, and the amount that would be determined in accordance with note 2(s)(i). Contingent liabilities assumed in a business combination that cannot be reliably fair valued or were not present obligations at the date of acquisition are disclosed in accordance with note 2(s)(i).



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018

(Expressed in RMB unless otherwise indicated)

## 2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

### (t) Revenue and other income

Income is classified by the Group as revenue when it arises from the sale of goods or the provision of services.

Revenue is recognised when control over a product or service is transferred to the customer, at the amount of promised consideration to which the Group is expected to be entitled, excluding those amounts collected on behalf of third parties. Revenue excludes value added tax or other sales taxes and is after deduction of any trade discounts.

Where the contract contains a financing component which provides a significant financing benefit to the customer for more than 12 months, 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 with the customer, and interest income is accrued separately under the effective interest method. Where the contract contains a financing component which provides a significant financing benefit to the Group, revenue recognised under that contract includes the interest expense accreted on the contract liability under the effective interest method. The Group takes advantage of the practical expedient in paragraph 63 of HKFRS 15 and does not adjust the consideration for any effects of a significant financing component if the period of financing is 12 months or less.

Further details of the Group's revenue and other income recognition policies are as follows:

#### (i) **Sale of goods**

Revenue from the sale of goods is measured at the fair value of the consideration received or receivable, net of returns and allowances, trade discounts and volume rebates and excluding value added tax or other sales taxes. Revenue is recognised when the customer takes possession of and accepts the products which is taken to be the point in time when the final testing of goods is completed at the customers' premises and there is no continuing management involvement with the goods.

#### (ii) **Service fee income**

Service fee income is recognised when services are rendered to customers. For consulting service, the service fee income is recognised on a straight-line basis over the service period. For after-sales services, service fee income is deferred over the warranty period or when services are rendered to customers if the after-sales services are not covered by the warranty period.



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)

## 2 SIGNIFICANT ACCOUNTING POLICIES (Continued)

### (t) Revenue and other income (Continued)

#### (iii) Construction projects

A contract with a customer is classified by the Group as a construction project when the contract relates to work on real estate assets under the control of the customer and therefore the Group's construction activities create or enhance an asset under the customer's control.

When the outcome of a construction project can be reasonably measured, revenue from the contract is recognised progressively over time using the cost-to-cost method, i.e. based on the proportion of the actual costs incurred relative to the estimated total costs.

The likelihood of the Group earning contractual bonuses for early completion or suffering contractual penalties for late completion are taken into account in making these estimates, such that revenue is only recognised to the extent that it is highly probable that a significant reversal in the amount of cumulative revenue recognised will not occur.

When the outcome of the project cannot be reasonably measured, revenue is recognised only to the extent of contract costs incurred that are expected to be recovered.

If at any time the costs to complete the project are estimated to exceed the remaining amount of the consideration under the project, then a provision is recognised in accordance with the policy set out in note 2(s)(ii).

Revenue for construction projects was recognised on a similar basis in the comparative period under HKAS 11.

#### (iv) Dividends

Dividend income from unlisted investments is recognised when the shareholder's right to receive payment is established.

#### (v) Interest income

Interest income from bank deposits is recognised as it accrues using the effective interest method. For financial assets measured at amortised cost or FVOCI (recycling) that are not credit-impaired, the effective interest rate is applied to the gross carrying amount of the asset. For credit-impaired financial assets, the effective interest rate is applied to the amortised cost (i.e. gross carrying amount net of loss allowance) of the asset (see note 2(j)(i)).

#### (vi) Government grants

Government grants are recognised in the statement of financial position initially when there is reasonable assurance that they will be received and that the Group will comply with the conditions attaching to them. Grants that compensate the Group for expenses incurred are recognised as income in the income statement on a systematic basis in the same periods in which the expenses are incurred. Grants that compensate the Group for the cost of an asset are deducted from the carrying amount of the asset and consequently are effectively recognised in the income statement over the useful life of the asset by way of reduced depreciation expense.



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)

### 2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

#### (u) Translation of foreign currency transactions

Foreign currency transactions during the year are translated at the foreign exchange rates ruling at the transaction dates. Monetary assets and liabilities denominated in foreign currencies are translated at the foreign exchange rates ruling at the end of the reporting period. Exchange gains and losses are recognised in the income statement.

Non-monetary assets and liabilities that are measured in terms of historical cost in a foreign currency are translated using the foreign exchange rates ruling at the transaction dates. The transaction date is the date on which the Company initially recognises such non-monetary assets and liabilities. Non-monetary assets and liabilities denominated in foreign currencies that are stated at fair value are translated using the foreign exchange rates ruling at the dates the fair value was measured.

The results of foreign operations are translated into RMB at the exchange rates approximating the foreign exchange rates ruling at the dates of transactions. Statement of financial position items are translated into RMB at the closing foreign exchange rates at the end of the reporting period. The resulting exchange differences are recognised in other comprehensive income and presented separately in equity in the exchange reserves.

On disposal of a foreign operation, the cumulative amount of the exchange differences relating to that foreign operation is reclassified from equity to the income statement when the profit or loss on disposal is recognised.

#### (v) Borrowing costs

Borrowing costs that are directly attributable to the acquisition, construction or production of an asset which necessarily takes a substantial period of time to get ready for its intended use or sale are capitalised as part of the cost of that asset. Other borrowing costs are expensed in the period in which they are incurred.

The capitalisation of borrowing costs as part of the cost of a qualifying asset commences when expenditure for the asset is being incurred, borrowing costs are being incurred and activities that are necessary to prepare the asset for its intended use or sale are in progress. Capitalisation of borrowing costs is suspended or ceases when substantially all the activities necessary to prepare the qualifying asset for its intended use or sale are interrupted or complete.

#### (w) Related parties

- (i) A person, or a close member of that person's family, is related to the Group if that person:
  - (a) has control or joint control over the Group;
  - (b) has significant influence over the Group; or
  - (c) is a member of the key management personnel of the Group or of a parent of the Group.



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)

## 2 SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

### (w) **Related parties** *(Continued)*

- (ii) An entity is related to the Group if any of the following conditions applies:
- (a) the entity and the Group are members of the same group (which means that each parent, subsidiary and fellow subsidiary is related to the others).
  - (b) one entity is an associate or joint venture of the other entity (or an associate or joint venture of a member of a group of which the other entity is a member).
  - (c) both entities are joint ventures of the same third party.
  - (d) one entity is a joint venture of a third entity and the other entity is an associate of the third entity.
  - (e) the entity is a post-employment plan for the benefit of employees of either the Group or an entity related to the Group.
  - (f) the entity is controlled or jointly-controlled by a person identified in (i).
  - (g) a person identified in (i)(a) 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).
  - (h) 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 Group's parent.

Close members of the family of a person are those family members who may be expected to influence, or be influenced by, that individual in their dealings with the entity.

### (x) **Segment reporting**

Operating segments, and the amounts of each segment item reported in the financial statements, are identified from the financial information provided regularly to the Group's most senior executive management for the purposes of allocating resources to, and assessing the performance of, the Group's various lines of business and geographical locations.

Individually material operating segments are not aggregated for financial reporting purposes unless the segments have similar economic characteristics and are similar in respect of the nature of products and services, the nature of production processes, the type or class of customers, the methods used to distribute the products or provide the services, and the nature of the regulatory environment. Operating segments which are not individually material may be aggregated if they share a majority of these criteria.



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)

### 3 REVENUE

The Group are principally engaged in integrated and comprehensive urban smart energy saving services. Its business covers three major segments including smart transportation, smart building and complex and smart energy, providing the customers with smart energy management products, solutions and integrated services throughout their full life cycles.

#### (a) Disaggregation of revenue

Disaggregation of revenue from contracts with customers by service lines is as follows:

	2018	2017
	RMB'000	(Note) RMB'000
Revenue from smart transportation business	702,766	534,792
Revenue from smart building and complex business	795,722	918,161
Revenue from smart energy business	538,100	527,017
	<b>2,036,588</b>	1,979,970

Note: The Group has initially applied HKFRS 15 using the cumulative effect method. Under this method, the comparative information is not restated and was prepared in accordance with HKAS 18 and HKAS 11 (see note 2(c)(ii)).

Disaggregation of revenue from contracts with customers by the timing of revenue recognition and by geographic markets is disclosed in notes 4(a) and 4(c) respectively.

#### (b) Revenue expected to be recognised in the future arising from contracts with customers in existence at the reporting date

As at 31 December 2018, the aggregated nominal contract amount allocated to the remaining performance obligations under the Group's existing contracts is approximately RMB3,093,767,000. This amount represents revenue expected to be recognised in the future from construction projects entered into by the customers with the Group. The Group will recognise the expected revenue in future when or as the work is completed.

The above amount also does not include any amounts of additional consideration that the Group may earn in the future by meeting the conditions set out in the Group's construction projects with the customers, unless at the reporting date it is highly probable that the Group will satisfy the conditions for earning the additional consideration.



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)

### 4 SEGMENT REPORTING

The Group manages its businesses by divisions. In a manner consistent with the way in which information is reported internally to the Group's most senior executive management for the purposes of resource allocation and performance assessment, the Group has presented the following three reportable segments. No operating segments have been aggregated to form the following reportable segments:

Smart transportation business ("STB"): It comprises a series of proprietary software and hardware products and systems for rail transit such as Integrated Supervision and Control System ("ISCS"), Building Automation System ("BAS") for rail transit and safety door system, providing integrated solutions with full life cycles ranging from planning, procurement, installation and commissioning to aftersales service.

Smart building and complex business ("SBB"): It provides integrated intelligence solutions and efficiency management services, namely integrated energy consumption monitoring, energy-saving consultation and reformation services and integration and product supply of intelligence system for buildings, aimed at different building and complex and rendering full life-cycle services of which reduces energy consumption and operating costs of buildings.

Smart energy business ("SEB"): It comprises a series of leading technologies such as regional energy planning, integrated utilisation of industrial waste heat recovery technology, heat pump technology, independent temperature and humidity control technology and variable air rate technology applied in the energy cascade utilisation as well as optimisation and transformation of energy system. The Group possess self-owned core leading technologies (in the field of urban heating network) such as heating network & heating source monitoring and optimal regulation, distributed variable frequency heating technology, cooling and heating network balancing technology, combined multi-heat sources heating technology.

#### (a) Information about reportable segments

For the purposes of assessing segment performance and allocating resources between segments, the Group's senior executive management monitors the results attributable to each reportable segment on the following bases:

Revenue and expenses are allocated to the reportable segments with reference to sales generated by those segments and the expenses incurred by those segments or which otherwise arise from the depreciation or amortisation of assets attributable to those segments. However, other than reporting inter-segment sales of products, assistance provided by one segment to another, including sharing of assets and technical know-how, is not measured.

The measure used for reporting segment results is profit or loss before income tax adjusted for items not specifically attributed to individual segments, such as finance cost, depreciation and amortisation, and certain allocated head office and corporate expenses/(gains). Segment profit or loss is used to measure performance as management believes that such information is the most relevant in evaluating the results of certain segments relative to other entities that operate within these industries.

In addition to receiving segment information concerning segment results, management is provided with segment information concerning revenue (including inter-segment sales), interest income and impairment losses. Inter-segment pricing is determined on a consistent basis using market benchmarks.



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)

### 4 SEGMENT REPORTING (Continued)

#### (a) Information about reportable segments (Continued)

Segment assets and liabilities are not regularly reported to the Group's senior executive management and therefore information of reportable segment assets and liabilities are not presented in the consolidated financial statements.

Disaggregation of revenue from contracts with customers by timing of revenue recognition, as well as information regarding the Group's reportable segments as provided to the Group's most senior executive management for the purposes of resource allocation and assessment of segment performance for the years ended 31 December 2018 and 2017 is set out below:

	STB		SBB		SEB		Total	
	2018	2017	2018	2017	2018	2017	2018	2017
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
<b>Disaggregated by timing of revenue recognition</b>								
Point in time	4,756	52,199	115,750	89,617	58,817	51,440	179,323	193,256
Over time	698,010	482,593	679,972	828,544	479,283	475,577	1,857,265	1,786,714
<b>Revenue from external customers</b>	<b>702,766</b>	534,792	<b>795,722</b>	918,161	<b>538,100</b>	527,017	<b>2,036,588</b>	1,979,970
Inter-segment revenue	-	-	-	-	-	-	-	-
<b>Reportable segment revenue</b>	<b>702,766</b>	534,792	<b>795,722</b>	918,161	<b>538,100</b>	527,017	<b>2,036,588</b>	1,979,970
Reportable segment profit	170,864	131,166	97,486	117,744	174,914	180,036	443,264	428,946
Interest income	3,438	5,304	8,958	6,739	22,802	19,274	35,198	31,317
Impairment losses	(980)	(7,873)	(1,110)	(11,057)	(750)	(6,956)	(2,840)	(25,886)

Note: The Group has initially applied HKFRS 15 and HKFRS 9 at 1 January 2018. Under the transition methods chosen, comparative information is not restated. See note 2(c).



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)

### 4 SEGMENT REPORTING (Continued)

#### (b) Reconciliations of reportable segment profit or loss

	2018 RMB'000	2017 RMB'000
Profit		
Reportable segment profit	443,264	428,946
Depreciation and amortisation	(112,188)	(97,148)
Finance costs	(10,828)	(13,500)
Unallocated head office and corporate expenses	(9,165)	(11,919)
Consolidated profit before taxation	311,083	306,379

#### (c) Geographic information

For the year ended 31 December 2018, as the Group does not have material operations outside the People's Republic of China ("PRC"), no geographic segment information is presented.

### 5 OTHER REVENUE AND OTHER NET (LOSS)/GAIN

#### (a) Other revenue

	2018 RMB'000	2017 RMB'000
Government grants	10,969	6,204
Interest income	35,198	31,317
Others	1,360	808
	47,527	38,329

#### (b) Other net (loss)/gain

	2018 RMB'000	2017 RMB'000
Net foreign exchange gain	620	4,564
Others	(832)	(1,742)
	(212)	2,822



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)

### 6 PROFIT BEFORE TAXATION

Profit before taxation is arrived at after charging:

**(a) Finance costs**

	2018 RMB'000	2017 RMB'000
Interest on loans and borrowings	10,828	13,500

**(b) Staff costs**

	2018 RMB'000	2017 RMB'000
Salaries and other benefits	147,981	116,045
Contributions to defined contribution retirement schemes	15,924	12,368
	163,905	128,413

Staff costs include directors' and senior management's remuneration (notes 8 and 27(d)).

Pursuant to the relevant labour rules and regulations in the PRC, the Group's PRC subsidiaries participate in a defined contribution retirement scheme (the "Scheme") organised by the local authorities whereby the subsidiaries are required to make contributions to the Scheme at 19% of the eligible employees' salaries for year ended 31 December 2018 (2017: 19%). Contributions to the Scheme vest immediately.

For the Group's subsidiaries in countries other than the PRC, the Group pays contributions to publicly or privately administered pension insurance plans on a mandatory, contractual or voluntary basis. The Group has no further payment obligations once the contributions have been paid. The contributions are recognised as employee benefit expenses when they are due. Prepaid contributions are recognised as an asset to the extent that a cash refund or a reduction in the future payments is available.

Save for the above, the Group has no other material obligation for payment of retirement benefits beyond the contributions described above.



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)

### 6 PROFIT BEFORE TAXATION (Continued)

#### (c) Other items

	2018	2017
	RMB'000	(Note) RMB'000
Cost of inventories (note 15(b))	1,426,675	1,347,694
Research and development expenses	5,730	5,544
Amortisation of intangible assets and lease prepayment	65,602	62,996
Depreciation (note 11)	46,586	34,152
Impairment losses		
– trade and other receivables and contract assets (notes 17 and 16)	2,840	25,886
Operating lease charges	12,297	14,299
Auditors' remuneration	2,295	2,500
– audit services	2,295	2,197
– non-audit services	–	303

Note: The Group has initially applied HKFRS 15 and HKFRS 9 at 1 January 2018. Under the transition methods chosen, comparative information is not restated. See note 2(c).

### 7 INCOME TAX

#### (a) Income tax in the consolidated income statement represents:

	2018	2017
	RMB'000	RMB'000
<b>Current tax</b>		
Provision for the year	42,947	37,830
Under provision in respect of prior years	4,285	2,028
	47,232	39,858
<b>Deferred tax</b>		
Origination of temporary differences (note 22(a))	2,517	3,630
	49,749	43,488



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018

(Expressed in RMB unless otherwise indicated)

### 7 INCOME TAX (Continued)

#### (b) Reconciliation between income tax expense and profit before taxation at applicable tax rates:

	Note	2018 RMB'000	2017 RMB'000
Profit before taxation		<b>311,083</b>	306,379
Expected tax calculated at the respective tax rates	(i)/(ii)	<b>79,121</b>	77,565
Tax effect on non-deductible expenses		<b>731</b>	554
Effect of tax concession	(iii)	<b>(37,464)</b>	(38,649)
Tax effect of non-taxable income		<b>(28)</b>	(974)
Tax effect of unused tax losses not recognised		<b>3,241</b>	3,082
Tax effect of utilisation of tax losses not recognised in prior years		<b>(137)</b>	(118)
Under provision in prior years		<b>4,285</b>	2,028
Actual income tax expense		<b>49,749</b>	43,488

Notes:

(i) The Company is subject to Singapore corporate income tax at 17% for the years ended 31 December 2018 and 2017. No provision for Singapore income tax was made because the Company sustained tax losses for the years ended 31 December 2018 and 2017.

(ii) The subsidiaries of the Group established in the PRC are subject to PRC corporate income tax ("CIT") rate of 25% for the years ended 31 December 2018 and 2017.

The subsidiary of the Group established in the Cayman Islands is not subject to any income tax pursuant to the rules and regulations of the Cayman Islands.

The subsidiary of the Group established in Hong Kong is subject to Hong Kong profits tax rate of 16.5% for the years ended 31 December 2018 and 2017.

(iii) Tongfang Technovator Int (Beijing) Co., Ltd. ("Technovator Beijing") is recognised as a high and new technology enterprise and is eligible to enjoy a preferential tax rate of 15% until December 2020.

Tongfang Energy Saving Engineering Technology Co., Ltd. ("Tongfang Energy Saving") is recognised as a high and new technology enterprise and is eligible to enjoy a preferential tax rate of 15% until December 2019.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**

For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)

**8 DIRECTORS' REMUNERATION**

Directors' remuneration disclosed pursuant to section 383(1) of the new Hong Kong Companies Ordinance and Part 2 of the Companies (Disclosure of Information about Benefits of Directors) Regulation are as follows:

	Year ended 31 December 2017						
	Directors' fees	Salaries, allowances and benefits in-kind	Discretionary bonuses	Retirement scheme contributions	Sub-total	Share-based payments (note (i))	Total
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
<b>Executive directors</b>							
Zhao Xiaobo	–	600	700	–	1,300	–	1,300
Seah Han Leong (note (ii))	–	285	–	48	333	–	333
<b>Non-executive directors</b>							
Huang Yu	–	–	–	–	–	–	–
Liu Tianmin	190	–	–	–	190	–	190
Wang Yinghu	190	–	–	–	190	–	190
<b>Independent non-executive directors</b>							
Fan Ren Da Anthony	311	–	–	–	311	–	311
Chia Yew Boon	311	–	–	–	311	–	311
Chen Hua	242	–	–	–	242	–	242
	1,244	885	700	48	2,877	–	2,877



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)

### 8 DIRECTORS' REMUNERATION (Continued)

	Year ended 31 December 2018						
	Directors' fees	Salaries, allowances and benefits in-kind	Discretionary bonuses	Retirement scheme contributions	Sub-total	Share-based payments (note (i))	Total
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
<b>Executive directors</b>							
Zhao Xiaobo	-	600	800	-	1,400	-	1,400
Qin Xuzhong (note (iii))	-	-	-	-	-	-	-
<b>Non-executive directors</b>							
Huang Yu	-	-	-	-	-	-	-
Liu Tianmin	183	-	-	-	183	-	183
Wang Yinghu	183	-	-	-	183	-	183
<b>Independent non-executive directors</b>							
Fan Ren Da Anthony	300	-	-	-	300	-	300
Chia Yew Boon	303	-	-	-	303	-	303
Chen Hua	233	-	-	-	233	-	233
	<b>1,202</b>	<b>600</b>	<b>800</b>	<b>-</b>	<b>2,602</b>	<b>-</b>	<b>2,602</b>

Notes:

- (i) These represent the estimated value of share options granted to the directors under the Company's share option scheme. The value of these share options is measured according to the Group's accounting policies for share-based payment transactions as set out in note 2(q)(ii) and, in accordance with that policy, includes adjustments to reverse amounts accrued in previous years where grants of equity instruments are forfeited prior to vesting. The details of these benefits in kind, including the principal terms and number of options granted, are disclosed under the paragraph "Share option scheme" in the directors' report and note 21.
- (ii) Mr. Seah Han Leong resigned from the position of executive director on 7 February 2018.
- (iii) Mr. Qin Xuzhong was designated as executive director on 7 February 2018.

During 2017 and 2018, there were no amounts paid or payable by the Group to the directors or any of the highest paid individuals set out in note 9 below as an inducement to join or upon joining the Group or as compensation for loss of office.



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)

### 9 INDIVIDUALS WITH HIGHEST EMOLUMENTS

Of the five individuals with the highest emoluments, one (2017: one) is a director whose emoluments are disclosed in note 8. The aggregate of the emoluments in respect of the other individuals are as follows:

	2018 RMB'000	2017 RMB'000
Salaries and other benefits	2,568	2,344
Discretionary bonuses	1,373	950
	<b>3,941</b>	3,294

The emoluments of the four (2017: four) individuals with the highest emoluments are within the following bands:

	2018 Number of Individuals	2017 Number of Individuals
HK\$500,001 – HK\$1,000,000	2	2
HK\$1,000,001 – HK\$1,500,000	2	2



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018

(Expressed in RMB unless otherwise indicated)

### 10 EARNINGS PER SHARE

The calculation of the basic and diluted earnings per share is based on the following data:

#### (a) Basic earnings per share

The calculation of basic earnings per share is based on the profit attributable to ordinary equity shareholders of the Company of RMB261,165,000 (2017: RMB259,358,000) and the weighted average number of ordinary shares of 782,447,668 (2017: 793,409,427) in issue during the year, calculated as follows:

Weighted average number of ordinary shares:

	2018 Number of shares	2017 Number of shares
Issued ordinary shares at 1 January	782,842,189	801,652,189
Effect of purchase of own shares	(394,521)	(19,416,307)
Effect of exercise of share option schemes	–	11,173,545
Weighted average number of ordinary shares at 31 December	782,447,668	793,409,427

#### (b) Diluted earnings per share

The calculation of diluted earnings per share is based on the profit attributable to equity shareholders of the Company of RMB261,165,000 (2017: RMB259,358,000) and the weighted average number of ordinary shares of 782,447,668 (2017: 793,409,427) in issue during the year, calculated as follows:

Weighted average number of ordinary shares (diluted):

The computation of diluted earnings per share does not assume the exercise of certain share options because they are antidilutive for the years ended 31 December 2018 and 2017.

	2018 Number of shares	2017 Number of shares
Weighted average number of ordinary shares at 31 December	782,447,668	793,409,427
Effect of deemed issue of ordinary shares under the Company's option scheme for nil consideration (note 21)	–	–
Weighted average number of ordinary shares (diluted) at 31 December	782,447,668	793,409,427



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)

### 11 PROPERTY, PLANT AND EQUIPMENT

	Leasehold improvements RMB'000	Furniture and fittings RMB'000	Computers and office equipment RMB'000	Plant and machinery RMB'000	Motor vehicles RMB'000	Construction in progress (CIP) RMB'000	Total RMB'000
<b>Cost:</b>							
At 1 January 2017	18,808	1,598	9,244	315,355	6,972	30,759	382,736
Additions	1,738	679	1,310	4,365	338	117,610	126,040
Transfer out	-	-	-	-	-	(39,035)	(39,035)
Disposals	(840)	(610)	(1,598)	-	(255)	-	(3,303)
Exchange adjustments	(68)	(37)	(34)	-	(79)	-	(218)
At 31 December 2017	19,638	1,630	8,922	319,720	6,976	109,334	466,220
At 1 January 2018	19,638	1,630	8,922	319,720	6,976	109,334	466,220
Additions	3,977	619	866	9	-	32,832	38,303
Transfer of CIP	-	-	-	74,897	-	(74,897)	-
Disposals	(4,278)	(5)	(12)	-	-	-	(4,295)
Exchange adjustments	61	29	35	-	63	-	188
At 31 December 2018	19,398	2,273	9,811	394,626	7,039	67,269	500,416
<b>Accumulated depreciation and impairment:</b>							
At 1 January 2017	4,154	880	6,522	134,426	4,198	-	150,180
Charge for the year	1,648	201	832	30,786	685	-	34,152
Written back on disposals	(535)	(456)	(1,504)	-	(136)	-	(2,631)
Exchange adjustments	(22)	(19)	(23)	-	(61)	-	(125)
At 31 December 2017	5,245	606	5,827	165,212	4,686	-	181,576
At 1 January 2018	5,245	606	5,827	165,212	4,686	-	181,576
Charge for the year	1,922	204	823	42,977	660	-	46,586
Written back on disposals	(1,156)	(5)	(12)	-	-	-	(1,173)
Exchange adjustments	31	19	26	-	67	-	143
At 31 December 2018	6,042	824	6,664	208,189	5,413	-	227,132
<b>Net book value:</b>							
At 31 December 2017	14,393	1,024	3,095	154,508	2,290	109,334	284,644
At 31 December 2018	13,356	1,449	3,147	186,437	1,626	67,269	273,284



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)

### 12 INTANGIBLE ASSETS

	Trade name RMB'000	Patents and technology know-how RMB'000	Total RMB'000
<b>Cost:</b>			
At 1 January 2017	4	431,646	431,650
Additions through internal development	–	71,227	71,227
Disposals	–	(104,944)	(104,944)
At 31 December 2017	4	397,929	397,933
At 1 January 2018	4	397,929	397,933
Additions through internal development	–	84,174	84,174
Disposals	–	(14,405)	(14,405)
At 31 December 2018	4	467,698	467,702
<b>Accumulated amortisation:</b>			
At 1 January 2017	–	168,034	168,034
Charge for the year	–	62,886	62,886
Written back on disposals	–	(104,944)	(104,944)
At 31 December 2017	–	125,976	125,976
At 1 January 2018	–	125,976	125,976
Charge for the year	–	65,492	65,492
Written back on disposals	–	(14,405)	(14,405)
At 31 December 2018	–	177,063	177,063
<b>Net book value:</b>			
At 31 December 2017	4	271,953	271,957
At 31 December 2018	4	290,635	290,639

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)**13 OTHER FINANCIAL ASSETS**

	2018 RMB'000	2017 RMB'000
Long-term receivables	708,221	516,083
Less: current portion of long-term receivable	(176,408)	(101,755)
	<b>531,813</b>	414,328

At 31 December 2018, long-term receivables included receivables of Karamay construction project of RMB65,611,000 (2017: RMB65,611,000). Karamay construction project ("Karamay project") is a construction project entered into among Karamay Construction Management Co., Ltd. ("Karamay Construction"), THTF and Technovator Beijing in 2013. Pursuant to Karamay contract, Karamay Construction engaged THTF as the contractor to carry out the construction project with the finance and major equipment supply provided by Technovator Beijing. The estimated total financing provided by Technovator Beijing is approximately RMB180 million. Karamay Construction should repay Technovator Beijing by five annual instalments, with an investment return charged at 140% of the then prevailing lending interest rate in respect of loans for the same term as quoted by the People's Bank of China. Karamay Construction didn't grant any security to Technovator Beijing.

The remaining balance of long-term receivables represent trade receivables of certain construction projects which are repayable by instalments over a 2 to 8 years period.

**14 INVESTMENTS IN SUBSIDIARIES**

The following list contains the particulars of the Company's principal subsidiaries at 31 December 2018.

Name of company	Place and date of incorporation/ establishment	Particulars of issued and fully paid up share/ registered capital	Proportion of ownership interest			Principal activity
			Group's effective interest	Held by the Company	Held by a subsidiary	
Technovator Beijing	Beijing, PRC 7 August 2006	USD 83,000,000	100%	100%	-	Design, manufacturing and marketing of building automation solutions
Tongfang Energy Saving	Beijing, PRC 21 June 2002	RMB231,812,167	100%	-	100%	Energy management services, marketing of heating power equipment
Tongfang Technovator Software (Beijing) Co., Ltd. ("Software Beijing")	Beijing, PRC 22 November 2013	RMB10,000,000	100%	-	100%	Software development, technology development, marketing, service and consulting

All the above subsidiaries were established as limited liability companies in the PRC.



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)

### 15 INVENTORIES

**(a) Inventories in the statement of financial position comprise:**

	Note	31 December 2018 RMB'000	1 January 2018 (i) RMB'000	31 December 2017 (i) RMB'000
Raw materials		306,989	317,660	80,966
Work in progress		7,556	2,320	2,320
Finished goods	(ii)	477,482	527,354	292,239
		792,027	847,334	375,525

Notes:

- (i) The Group has initially applied HKFRS 15 using the cumulative effect method and adjusted the opening balances at 1 January 2018. Comparative information has not been restated.
- (ii) Upon the adoption of HKFRS 15, opening adjustments were made as at 1 January 2018 to reclassify amounts previously included as "gross amounts due from customers for contract work" to inventories and other costs, which related to uninstalled materials that have been delivered to a construction project site for use in a project as inventories, over which the control has not been transferred to customers.

**(b) The analysis of the amount of inventories recognised as an expense and included in the consolidated income statement is as follows:**

	2018 RMB'000	2017 RMB'000
Carrying amount of inventories sold	1,426,675	1,347,694



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)

### 16 CONTRACT ASSETS AND CONTRACT LIABILITIES

#### (a) Contract assets

	Notes	31 December 2018 RMB'000	1 January 2018 (i) RMB'000	31 December 2017 (i) RMB'000
<b>Contract assets</b>				
Arising from performance under construction projects	(ii)	795,672	427,515	–
<b>Receivables from contracts with customers within the scope of HKFRS 15, which are included in "Trade and other receivables" (note 17)</b>				
		945,520	1,114,656	

Notes:

- (i) The Group has initially applied HKFRS 9 and HKFRS 15 using the cumulative effect method and adjusted the opening balances as at 1 January 2018.
- (ii) Upon the adoption of HKFRS 15, certain amounts previously included as "gross amounts due from customers for contract work" were reclassified to contract assets (see note 2(c)(ii)).

Typical payment terms which impact on the amount of contract assets recognised are as follows:

- Construction projects  
The Group's construction projects include payment schedules which require stage payments over the construction period once milestones are reached. These payment schedules prevent the build-up of significant contract assets.

#### (b) Contract liabilities

	Note	31 December 2018 RMB'000	1 January 2018 (i) RMB'000	31 December 2017 (i) RMB'000
<b>Contract liabilities</b>				
Construction projects				
– Billings in advance of performance	(ii)	111,655	99,362	–

Notes:

- (i) The Group has initially applied HKFRS 15 using the cumulative effect method and adjusted the opening balance at 1 January 2018.
- (ii) Upon the adoption of HKFRS 15, certain amounts previously included as "gross amounts due to customers for contract work" and "Trade and other payables" (note 19) were reclassified to contract liabilities (see note 2(c)(ii)).



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)

### 16 CONTRACT ASSETS AND CONTRACT LIABILITIES *(Continued)*

#### (b) Contract liabilities *(Continued)*

Typical payment terms which impact on the amount of contract liabilities recognised are as follows:

- Construction projects  
When the Group receives a deposit before the production activity commences this will give rise to contract liabilities at the start of a contract, until the revenue recognised on the project exceeds the amount of the deposit. The amount of deposit, if any, was negotiated on a case by case basis with customers.

#### *Movements in contract liabilities*

	2018 RMB'000
Balance at 1 January	99,362
Decrease in contract liabilities as a result of recognising revenue during the year that was included in the contract liabilities at the beginning of the period	(70,788)
Increase in contract liabilities as a result of billing in advance of construction activities	83,081
Balance at 31 December	111,655

The amount of billings in advance of performance received expected to be recognised as income after more than one year is RMB28,196,000 (2017: RMB28,574,000, which were included under “trade and other payables”).

### 17 TRADE AND OTHER RECEIVABLES

	2018 RMB'000	2017 RMB'000
Trade debtors due from related parties	48,852	46,327
Other trade debtors	974,920	1,147,189
Bills receivable	31,030	28,287
Less: Allowance for doubtful debts	(78,252)	(78,860)
	976,550	1,142,943
Other receivables		
– amounts due from related parties	16,395	32,875
– amounts due from third parties <i>(Note)</i>	83,904	138,239
Less: Allowance for doubtful debts	(5,180)	(3,581)
	1,071,669	1,310,476
Deposits and prepayments	137,660	127,725
	1,209,329	1,438,201

Note: In 2018, the decrease in other receivables due from third parties includes the amount received for the disposal of a subsidiary in 2015 amounting to RMB53,790,000.

All of the trade and other receivables are expected to be recovered or recognised as expense within one year.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)**17 TRADE AND OTHER RECEIVABLES** *(Continued)***Ageing analysis**

Included in trade and other receivables are trade debtors and bills receivable (net of allowance for doubtful debts) with the following ageing analysis as of the end of the reporting period:

	2018 RMB'000	2017 RMB'000
Current	646,054	727,979
Less than 1 month past due	530	3,080
More than 1 month but less than 3 months past due	5,217	93,943
More than 3 months but less than 12 months past due	120,622	133,040
More than 12 months past due	204,127	184,901
	330,496	414,964
	976,550	1,142,943

Trade debtors and bills receivable are due within 1–180 days from the date of billing. Further details of the Group's credit policy are set out in note 25(a).

**18 CASH AND CASH EQUIVALENTS****(a) Cash and cash equivalents comprise:**

	2018 RMB'000	2017 RMB'000
Deposit with banks and other financial institutions	17,613	408
Cash at bank and in hand	671,405	520,854
Cash and cash equivalents in the consolidated statement of financial position	689,018	521,262
Restricted deposit	(17,613)	(408)
Cash and cash equivalents in the consolidated cash flow statement	671,405	520,854



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018

(Expressed in RMB unless otherwise indicated)

### 18 CASH AND CASH EQUIVALENTS *(Continued)*

#### (b) Reconciliation of liabilities arising from financing activities

	Loans and borrowings RMB'000 (Note 20)	Finance leases RMB'000	Total RMB'000
<b>At 1 January 2018</b>	242,306	169	242,475
<b>Changes from financing cash flows:</b>			
Proceeds from loans and borrowings	190,397	–	190,397
Repayment of loans and borrowings	(195,826)	–	(195,826)
Other borrowing costs paid	(7,865)	(189)	(8,054)
Total changes from financing cash flows	(13,294)	(189)	(13,483)
<b>Other changes:</b>			
Finance charges on obligations under finance leases	–	20	20
Interest expenses	10,808	–	10,808
Total other changes	10,808	20	10,828
<b>At 31 December 2018</b>	239,820	–	239,820
	Loans and borrowings RMB'000 (Note 20)	Finance leases RMB'000	Total RMB'000
<b>At 1 January 2017</b>	290,354	358	290,712
<b>Changes from financing cash flows:</b>			
Proceeds from loans and borrowings	175,730	–	175,730
Repayment of loans and borrowings	(227,021)	–	(227,021)
Other borrowing costs paid	(10,237)	(209)	(10,446)
Total changes from financing cash flows	(61,528)	(209)	(61,737)
<b>Other changes:</b>			
Finance charges on obligations under finance leases	–	20	20
Interest expenses	13,480	–	13,480
Total other changes	13,480	20	13,500
<b>At 31 December 2017</b>	242,306	169	242,475

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)**19 TRADE AND OTHER PAYABLES**

	Note	31 December 2018 RMB'000	1 January 2018 (i) RMB'000	31 December 2017 (i) RMB'000
Trade payables due to related parties		<b>125,757</b>	114,939	114,939
Other trade and bills payables		<b>1,216,129</b>	1,167,200	1,167,200
		<b>1,341,886</b>	1,282,139	1,282,139
Other payables and accruals				
– amounts due to related parties		<b>19,905</b>	31,383	31,383
– amounts due to third parties		<b>161,625</b>	115,255	115,255
Financial liabilities measured at amortised cost		<b>1,523,416</b>	1,428,777	1,428,777
Receipts in advance	(ii)	–	–	83,855
		<b>1,523,416</b>	1,428,777	1,512,632

Notes:

- (i) The Group has initially applied HKFRS 15 using the cumulative effect method and adjusted the opening balance at 1 January 2018.
- (ii) Upon the adoption of HKFRS 15, receipts in advance previously included as “trade and other payables” were reclassified to contract liabilities (see note 2(c)(ii) and note 16(b)).

All of the above balances are expected to be settled within one year. Included in trade and other payables are trade and bills payables with the following ageing analysis as of the end of reporting period:

	2018 RMB'000	2017 RMB'000
<b>By date of invoice:</b>		
Within 3 months	<b>943,864</b>	906,842
More than 3 months but within 6 months	<b>43,500</b>	44,006
More than 6 months but within 12 months	<b>73,866</b>	109,479
More than 12 months	<b>280,656</b>	221,812
	<b>1,341,886</b>	1,282,139



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)

### 20 LOANS AND BORROWINGS

(a) The analysis of carrying amount of loans and borrowings is as follows:

	2018 RMB'000	2017 RMB'000
Bank loans		
– Unsecured and unguaranteed	170,300	175,730
	170,300	175,730
Loans from related parties (note 27(c))	69,520	66,576
	239,820	242,306

(b) At the end of reporting period, loans and borrowings were repayable as follows:

	2018 RMB'000	2017 RMB'000
Within 1 year or on demand	239,820	242,306

(c) The amounts of banking facilities and the utilisation at the end of reporting period are set out as follows:

	2018 RMB'000	2017 RMB'000
Unsecured banking facilities	600,000	470,000

At 31 December 2018, the facilities were utilised to the extent of RMB170,300,000 (2017: RMB175,730,000).

At 31 December 2018, none of the Group's banking facilities are subject to the fulfilment of covenants.



NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)

## 21 EQUITY SETTLED SHARE-BASED TRANSACTIONS

### (a) Share Option Scheme 2012

The Company has a share option scheme (“Share Option Scheme 2012”) which was adopted on 23 July 2012 (“the date of grant”) whereby the directors of the Company are authorised, at their discretion, to invite employees of the Group, including directors of the Company, to take up options to subscribe for a total of 48,500,000 ordinary shares in the share capital of the Company, upon exercise of such option at an exercise price of HK\$1.15 per share, which represents (1) the closing price of HK\$1.15 per share as stated in the daily quotation sheets issued by the Stock Exchange on the date of grant; and (2) the average closing price of HK\$1.15 per share as stated in the daily quotation sheet issued by the Stock Exchange for the five business days immediately preceding the date of grant. Under Share Option Scheme 2012, the options granted shall have an exercisable period of 5 years from the date of grant and 50% of the total number of options granted will be vested after the second anniversary of the date of grant conditional upon the Company meeting its profit target for the year 2012 and the remaining 50% will be vested after the third anniversary of the date of grant conditional upon the Company meeting its profit target for the year 2013.

#### (i) The terms and conditions of the grants are as follows:

	Number of options	Vesting conditions	Contractual life of options
<b>Options granted to directors and chief executives:</b>			
– on 23 July 2012	8,700,000	2 years service and meeting 2012 profit target	5 years
– on 23 July 2012	8,700,000	3 years service and meeting 2013 profit target	5 years
<b>Options granted to employees:</b>			
– on 23 July 2012	15,550,000	2 years service and meeting 2012 profit target	5 years
– on 23 July 2012	15,550,000	3 years service and meeting 2013 profit target	5 years
Total share options granted	48,500,000		



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)

### 21 EQUITY SETTLED SHARE-BASED TRANSACTIONS *(Continued)*

(a) **Share Option Scheme 2012** *(Continued)*

(ii) **The number and weighted average exercise prices of share options are as follows:**

	2018		2017	
	Weighted average exercise price	Number of options	Weighted average exercise price	Number of options
Outstanding at the beginning of the year	-	-	HK\$1.15	16,720,000
Exercised during the year	-	-	HK\$1.15	(16,720,000)
Outstanding at the end of the year	-	-	-	-
Exercisable at the end of the year	-	-	-	-

The options exercised during 2017 had a weighted average exercise price of HK\$1.15. All options have been exercised during 2017.

(iii) **Fair value of share options and assumptions**

The fair value of services received in return for share options granted is measured by reference to the fair value of share options granted. The estimate of the fair value of the share options granted is measured based on a Black-Scholes model. The contractual life of the share option is used as an input into this model. Expectations of early exercise are incorporated into the Black-Scholes model.

**Fair value of share options and assumptions**

Fair value at measurement date	HK\$0.21
Share price	HK\$1.15
Exercise price	HK\$1.15
Expected volatility	42.54%
Option life	5 years
Expected dividends	0%
Risk-free interest rate	0.53%

The expected volatility is based on the historical volatility of the share prices of the Company. Expected dividends are based on historical dividends. Changes in the subjective input assumptions could materially affect the fair value estimate.

Share options were granted under a service and non-market performance condition. The condition has not been taken into account in the grant date fair value measurement of the services received. There was no market conditions associated with the share option grants.



NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)

21 EQUITY SETTLED SHARE-BASED TRANSACTIONS (Continued)

(b) Share Option Scheme 2013

The Company has a share option scheme (“Share Option Scheme 2013”) which was adopted on 5 September 2013 (“the date of grant”) whereby the directors of the Company are authorised, at their discretion, to invite directors and employees of the Group, suppliers and other individuals, to take up options to subscribe for a total of 52,100,000 ordinary shares in the share capital of the Company, upon exercise of such option at an exercise price of HK\$3.06 per share, which represents the higher of (1) the closing price of HK\$3.06 per share as stated in the daily quotation sheets issued by the Stock Exchange on the date of grant; and (2) the average closing price of HK\$2.91 per share as stated in the daily quotation sheet issued by the Stock Exchange for the five business days immediately preceding the date of grant.

Under Share Option Scheme 2013, the options granted to directors, employees and other individuals shall have an exercisable period of 5 years from the date of grant and 50% of the total number of options granted will be vested after the second anniversary of the date of grant conditional upon the Company meeting its profit target for the year 2014 and the remaining 50% will be vested after the third anniversary of the date of grant conditional upon the Company meeting its profit target for the year 2015. The options granted to the suppliers of goods or services shall have an exercisable period of 5 years from the date of grant and 100% of the total number of options granted will be vested after the second anniversary of the date of grant conditional upon the price per share equal to or exceeding 150% of the exercise price.

(i) The terms and conditions of the grants are as follows:

	Number of options	Vesting conditions	Contractual life of options
<b>Options granted to directors</b>			
– on 5 September 2013	3,500,000	2 years service and meeting 2014 profit target	5 years
– on 5 September 2013	3,500,000	3 years service and meeting 2015 profit target	5 years
<b>Options granted to management and employees</b>			
– on 5 September 2013	5,200,000	2 years service and meeting 2014 profit target	5 years
– on 5 September 2013	5,200,000	3 years service and meeting 2015 profit target	5 years



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)

### 21 EQUITY SETTLED SHARE-BASED TRANSACTIONS *(Continued)*

**(b) Share Option Scheme 2013 *(Continued)***

**(i) The terms and conditions of the grants are as follows: *(Continued)***

	Number of options	Vesting conditions	Contractual life of options
<b>Options granted to suppliers of goods or services</b>			
– on 5 September 2013	1,800,000	2 years and meeting the price per share equal to or exceeding 150% of the exercise price	5 years
<b>Options granted to other individuals</b>			
– on 5 September 2013	16,450,000	2 years service and meeting 2014 profit target	5 years
– on 5 September 2013	16,450,000	3 years service and meeting 2015 profit target	5 years
Total share options granted	52,100,000		

**(ii) The number and weighted average exercise prices of share options are as follows:**

	2018		2017	
	Weighted average exercise price	Number of options	Weighted average exercise price	Number of options
Outstanding at the beginning of the year	HK\$3.06	44,400,000	HK\$3.06	48,150,000
Forfeited during the year	–	(44,400,000)	HK\$3.06	(3,750,000)
Outstanding at the end of the year	–	–	HK\$3.06	44,400,000
Exercisable at the end of the year		–		44,400,000

The options outstanding at 31 December 2017 had an exercise price of HK\$3.06 and weighted average remaining contractual life of 0.68 years. All outstanding options have been forfeited during 2018.



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)

### 21 EQUITY SETTLED SHARE-BASED TRANSACTIONS *(Continued)*

#### (b) Share Option Scheme 2013 *(Continued)*

##### (iii) Fair value of share options and assumptions

The fair value of services received in return for share options granted is measured by reference to the fair value of share options granted. The estimate of the fair value of the share options granted is measured based on a Black-Scholes model. The contractual life of the share option is used as an input into this model. Expectations of early exercise are incorporated into the Black-Scholes model.

##### Fair value of share options and assumptions

Fair value at measurement date	
– Options granted to directors, employees and other individuals	HK\$0.32
– Options granted to suppliers of goods or services	HK\$1.04
Share price	HK\$3.06
Exercise price	HK\$3.06
Expected volatility	45.30%
Option life	5 years
Expected dividends	0%
Risk-free interest rate	1.043%

The expected volatility is based on the historical volatility of the share prices of the Company. Expected dividends are based on historical dividends. Changes in the subjective input assumptions could materially affect the fair value estimate.

Share options granted to directors, employees and other individuals were under a service and non-market performance condition. The condition has not been taken into account in the grant date fair value measurement of the services received. Share options granted to suppliers of goods or services were under market condition. The condition has been taken into account in the grant date fair value measurement of the services received.

#### (c) Share Option Scheme 2014

The Company has a share option scheme (“Share Option Scheme 2014”) which was adopted during 2014, including options granted in August 2014 and options granted in October 2014, respectively.

##### Options granted in August 2014

Under Share Option Scheme 2014, on 15 August 2014 (“the date of grant”) the directors of the Company are authorised, at their discretion, to invite directors and employees of the Group, to take up options to subscribe for a total of 7,300,000 ordinary shares in the share capital of the Company, upon exercise of such option at an exercise price of HK\$3.83 per share, which represents the higher of (1) the closing price of HK\$3.83 per share as stated in the daily quotation sheets issued by the Stock Exchange on the date of grant; and (2) the average closing price of HK\$3.73 per share as stated in the daily quotation sheets issued by the Stock Exchange for the five business days immediately preceding the date of grant.

In August 2014, the options granted shall have an exercisable period of 5 years from the date of grant. The total number of options granted to directors will be vested immediately. And the total number of options granted to management and employees will be vested after the second anniversary of the date of grant.



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018

(Expressed in RMB unless otherwise indicated)

### 21 EQUITY SETTLED SHARE-BASED TRANSACTIONS *(Continued)*

#### (c) Share Option Scheme 2014 *(Continued)*

##### *Options granted in October 2014*

Under Share Option Scheme 2014, on 17 October 2014 (“the date of grant”) the directors of the Company are authorised, at their discretion, to invite certain management and employees of the Group, suppliers and other individuals, to take up options to subscribe for a total of 7,000,000 ordinary shares in the share capital of the Company, upon exercise of such option at an exercise price of HK\$3.444 per share, which represents the higher of (1) the closing price of HK\$3.34 per share as stated in the daily quotation sheets issued by the Stock Exchange on the date of grant; and (2) the average price of HK\$3.444 per share as stated in the daily quotation sheets issued by the Stock Exchange for the five business days immediately preceding the date of grant.

In October 2014, the options granted shall have an exercisable period of 5 years from the date of grant and 50% of the total number of options granted will be vested after the first anniversary of the date of grant conditional upon the Company meeting its profit target for the year 2014 and the remaining 50% will be vested after the second anniversary of the date of grant conditional upon the Company meeting its profit target for the year 2015.

#### (i) *The terms and conditions of the grants are as follows:*

	Number of options	Vesting conditions	Contractual life of options
<b>Options granted to directors</b>			
– on 15 August 2014	3,000,000	At grant	5 years
<b>Options granted to management and employees</b>			
– on 15 August 2014	4,300,000	2 years service	5 years
– on 17 October 2014	3,500,000	1 years service and meeting 2014 profit target	5 years
– on 17 October 2014	3,500,000	2 years service and meeting 2015 profit target	5 years
<b>Total share options granted</b>	<b>14,300,000</b>		



NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)

21 EQUITY SETTLED SHARE-BASED TRANSACTIONS (Continued)

(c) Share Option Scheme 2014 (Continued)

(ii) The number and weighted average exercise prices of share options are as follows:

	2018		2017	
	Weighted average exercise price	Number of options	Weighted average exercise price	Number of options
Outstanding at the beginning and the end of the year	HK\$3.64	13,800,000	HK\$3.64	14,300,000
Forfeited during the year	HK\$3.64	(400,000)	HK\$3.64	(500,000)
Outstanding at the end of the year	HK\$3.64	13,400,000	HK\$3.64	13,800,000
Exercisable at the end of the year		13,400,000		13,800,000

The options granted in 2014 outstanding at 31 December 2018 had a weighted average exercise price of HK\$3.64 (2017: HK\$3.64) and weighted average remaining contractual life of 0.71 years (2017: 1.71 years).

(iii) Fair value of share options and assumptions

The fair value of services received in return for share options granted is measured by reference to the fair value of share options granted. The estimate of the fair value of the share options granted is measured based on a Black-Scholes model. The contractual life of the share option is used as an input into this model. Expectations of early exercise are incorporated into the Black-Scholes model.

	Granted in August 2014	Granted in October 2014
<b>Fair value of share options and assumptions</b>		
Fair value at measurement date		
– Options granted to directors	HK\$0.97	NIL
– Options granted to management and employees with 1 year service	NIL	HK\$0.92
– Options granted to management and employees with 2 year service	HK\$1.18	HK\$1.00
Share price	HK\$3.83	HK\$3.444
Exercise price	HK\$3.83	HK\$3.444
Expected volatility	38.60% – 40.09%	40.44%
Option life	5 years	5 years
Expected dividends	0%	0%
Risk-free interest rate	1.288%	1.050% – 1.198%

The expected volatility is based on the historical volatility of the share prices of the Company. Expected dividends are based on historical dividends. Changes in the subjective input assumptions could materially affect the fair value estimate.

Share options were granted under a service and non-market performance condition. The condition has not been taken into account in the grant date fair value measurement of the services received. There was no market conditions associated with the share option grants.



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018

(Expressed in RMB unless otherwise indicated)

## 22 INCOME TAX IN THE STATEMENT OF FINANCIAL POSITION

### (a) Deferred tax assets and liabilities recognised

The components of deferred tax (assets)/liabilities recognised in the consolidated statement of financial position and movements during the year are as follows:

	Credit loss allowance RMB'000	Receipts by instalment RMB'000	Total RMB'000
At 1 January 2017	(13,504)	15,133	1,629
(Credited)/Charged to the consolidated income statement (note 7(a))	(4,100)	7,730	3,630
At 31 December 2017	(17,604)	22,863	5,259
At 1 January 2018	(17,604)	22,863	5,259
(Credited)/Charged to the consolidated income statement (note 7(a))	(901)	3,418	2,517
At 31 December 2018	(18,505)	26,281	7,776
		<b>2018</b> <b>RMB'000</b>	2017 RMB'000
<b>Represented by:</b>			
Deferred tax assets		<b>(18,505)</b>	(17,604)
Deferred tax liabilities		<b>26,281</b>	22,863
		<b>7,776</b>	5,259

### (b) Deferred tax assets not recognised

At 31 December 2018, in accordance with the accounting policy set out in note 2(r), the Company did not recognise deferred tax assets in respect of unused tax losses of RMB157,684,000 (2017: RMB142,148,000) and the Group did not recognise deferred tax assets in respect of unused tax losses of RMB175,565,000 (2017: RMB158,723,000), as it is not probable that future taxable profits against which the losses can be utilised will be available to the relevant tax entities. The tax losses of the Company do not expire under tax legislation. The remaining unrecognised tax losses of RMB17,881,000 will not expire until after 2019.

### (c) Deferred tax liabilities not recognised

At 31 December 2018, no deferred tax liability was recognised on the taxable temporary differences in respect of the tax that would be payable on the distribution of the undistributed profits of certain subsidiaries of the Company amounting RMB1,370,786,000 (2017: RMB1,125,781,000), as the Group controls the dividend policy of these subsidiaries and it has been determined that it is probable that such profits will not be distributed in the foreseeable future.

According to the CIT Law and its implementation rules, non-PRC-resident enterprises are levied withholding tax at 10%, subject to any double tax treaty relief, on dividends from their PRC-resident investees for earnings accumulated beginning on 1 January 2008. According to the double tax treaty between the PRC and Singapore, the dividend withholding tax rate could be reduced to 5% provided that a Singapore parent company is the "beneficial owner" and holds directly at least 25% of the equity interest of a PRC company. Distributions of earnings generated prior to 1 January 2008 are exempt from such withholding tax.



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)

### 23 DEFERRED INCOME

Deferred income of the Group mainly represents subsidies relating to the construction of property, plant and equipment, which would be recognised in other income on a straight-line basis over the expected useful life of the relevant assets.

### 24 CAPITAL, RESERVES AND DIVIDENDS

#### (a) Movements in components of equity

The reconciliation between the opening and closing balances of each component of the Group's consolidated equity is set out in the consolidated statement of changes in equity.

Details of the changes in the Company's individual components of equity between the beginning and the end of the year are set out below:

	Share capital	Treasury shares	Share-based compensation reserve	Translation reserve	Retained profits	Total equity
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
	Note 24(c)	Note 24(d)	Note 24(e)(iii)	Note 24(e)(ii)		
At 1 January 2017	1,254,909	(581)	24,526	178,217	451,641	1,908,712
Purchase of own shares	-	(82,597)	-	-	-	(82,597)
Cancellation of treasury shares	(82,685)	82,685	-	-	-	-
Shares issued upon exercise of share options	18,985	-	(2,258)	-	-	16,727
Forfeiture of share option	-	-	(1,200)	-	1,200	-
Loss for the year	-	-	-	-	(11,791)	(11,791)
Other comprehensive income	-	-	-	(108,433)	-	(108,433)
At 31 December 2017	1,191,209	(493)	21,068	69,784	441,050	1,722,618
At 1 January 2018	<b>1,191,209</b>	<b>(493)</b>	<b>21,068</b>	<b>69,784</b>	<b>441,050</b>	<b>1,722,618</b>
Purchase of own shares	-	(748)	-	-	-	(748)
Cancellation of treasury shares	(1,241)	1,241	-	-	-	-
Forfeiture of share option	-	-	(11,989)	-	11,989	-
Loss for the year	-	-	-	-	(15,778)	(15,778)
Other comprehensive income	-	-	-	86,271	-	86,271
At 31 December 2018	<b>1,189,968</b>	<b>-</b>	<b>9,079</b>	<b>156,055</b>	<b>437,261</b>	<b>1,792,363</b>



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)

### 24 CAPITAL, RESERVES AND DIVIDENDS (Continued)

#### (b) Dividends

There were no dividends payable to equity shareholders attributable to the previous financial year, and no dividends were approved and paid during 2018 and 2017.

#### (c) Share capital

	2018		2017	
	Number of shares	Amounts RMB'000	Number of shares	Amounts RMB'000
<b>Ordinary shares issued and fully paid:</b>				
At 1 January	782,842,189	1,191,209	801,652,189	1,254,909
Shares repurchased and cancelled	(650,000)	(1,241)	(35,530,000)	(82,685)
Shares issued upon exercise of share options	–	–	16,720,000	18,985
At 31 December	782,192,189	1,189,968	782,842,189	1,191,209

The holders of ordinary shares are entitled to receive dividends as declared from time to time and are entitled to one vote per share at meetings of the Company. All ordinary shares rank equally with regard to the Company's residual assets.

- (i) There were no shares issued by the Company during 2018. During 2017, a total of 16,720,000 shares were issued by the Company upon the exercise of shares options by certain grantees pursuant to the share option schemes at a total consideration of HK\$19,228,000 (RMB16,727,000 equivalent) which was credited to share capital and HK\$2,592,150 (RMB2,258,000 equivalent) has been transferred from the share based compensation reserve to the share capital in accordance with policy set out in note 2(q)(ii).
- (ii) Terms of unexpired and unexercised share options under the Share Option Scheme 2012, 2013 and 2014 at the end of reporting periods are as follows:

Exercise period	2018		2017	
	Exercise price	Number of options	Exercise price	Number of Options
5 September 2015 to 4 September 2018	–	–	HK\$3.06	21,100,000
5 September 2016 to 4 September 2018	–	–	HK\$3.06	23,300,000
15 August 2014 to 14 August 2019	HK\$3.83	3,000,000	HK\$3.83	3,000,000
15 August 2016 to 14 August 2019	HK\$3.83	4,300,000	HK\$3.83	4,300,000
17 October 2015 to 16 October 2019	HK\$3.444	2,600,000	HK\$3.444	3,000,000
17 October 2016 to 16 October 2019	HK\$3.444	3,500,000	HK\$3.444	3,500,000
		13,400,000		58,200,000

Each option entitles the holder to subscribe for one ordinary share in the Company. Further details of these options are set out in note 21.



NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)

24 CAPITAL, RESERVES AND DIVIDENDS (Continued)

(d) Treasury shares

	2018	
	Number of shares	Amounts RMB'000
<b>Treasury shares</b>		
At 1 January	250,000	493
Shares repurchased to be cancelled	400,000	748
Cancellation of treasury shares	(650,000)	(1,241)
At 31 December	-	-

During 2018, the Company repurchased its own ordinary shares on The Stock Exchange of Hong Kong Limited as follows:

Month/year	Number of shares repurchased	Highest price paid per share HK\$	Lowest price paid per share HK\$	Aggregate price paid HK\$'000
January 2018	400,000	2.45	2.22	938
				938

The repurchase was governed by section 257 of the Hong Kong Companies Ordinance. The total amount paid on the repurchased shares of HK\$938,120 (approximately RMB748,000 equivalent) was paid wholly out of capital. 650,000 shares out of the total repurchased shares were cancelled and accordingly the issued share capital of the Company was reduced by HK\$1,518,340 (approximately RMB1,241,000 equivalent).

(e) Nature and purpose of reserves

(i) Statutory reserves

Transfers from retained profits to statutory reserves are made in accordance with the relevant PRC rules and regulations and the articles of association of the Company's PRC subsidiaries and were approved by the respective board of directors.

The subsidiaries in the PRC are required to appropriate 10% of its after-tax profit, as determined in accordance with the PRC accounting rules and regulations, to the general reserve fund until the statutory reserve balance reaches 50% of the registered capital. The transfer to this reserve must be made before distribution of a dividend to equity owners.

The statutory reserve can be utilised to offset prior year's losses or converted into capital of the subsidiary.



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018

(Expressed in RMB unless otherwise indicated)

### 24 CAPITAL, RESERVES AND DIVIDENDS *(Continued)*

#### (e) **Nature and purpose of reserves** *(Continued)*

##### (ii) **Translation reserve**

The translation reserve comprises all foreign exchange differences arising from the translation of the financial statements of foreign operations. The reserve is dealt with in accordance with the accounting policies set out in note 2(u).

##### (iii) **Share-based compensation reserve**

Share-based compensation reserve represents the fair value of the share options granted to employees of the Group in accordance with the accounting policy adopted for share-based payments in note 2(q)(ii).

##### (iv) **Other reserves**

Other reserves are resulted from transactions with equity holders in their capacity as equity holders. The balance comprises capital reserve movements arising from difference between fair value of consideration paid and the net assets acquired in a business combination under common control or the amount by which the non-controlling interests are adjusted to reflect the changes in its interests in the subsidiary.

##### (v) **Distributable reserves**

At 31 December 2018, the aggregate amount of reserves available for distribution to equity shareholders of the Company was RMB437,261,000 (2017: RMB441,050,000).

#### (f) **Capital management**

The Group's objectives in the aspect of managing capital are to safeguard the Group's ability to continue as a going concern in order to provide returns for shareholders and benefits for other stakeholders and to maintain an optimal capital structure to reduce the cost of capital.

The Company defines "capital" as including all components of equity and short-term and long-term loans. On this basis, at 31 December 2018, the amount of capital employed was RMB2,897,236,000 (2017: RMB2,632,570,000).

The Group actively and regularly reviews and manages its capital structure to maintain a balance between the higher shareholders returns that might be possible with higher levels of borrowings and the advantages and security afforded by a sound capital position, and makes adjustments to the capital structure in light of changes in economic conditions. In order to maintain or adjust the capital structure, the Group may adjust the amount of dividends paid to shareholders, issue new shares or dispose of assets to reduce debt.

Neither the Company nor any of its subsidiaries are subjected to externally imposed capital requirements.



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)

### 25 FINANCIAL RISK MANAGEMENT AND FAIR VALUES

Exposure to credit, liquidity, interest rate and currency risks arises in the normal course of the Group's business. The Group's exposure to these risks and the financial risk management policies and practices used by the Group to manage these risks are described below.

#### (a) Credit risk

Credit risk refers to the risk that a counterparty will default on its contractual obligations resulting in a financial loss to the Group. The Group's credit risk is primarily attributable to trade and other receivables and contract assets. Management has a credit policy in place and the exposure to credit risk is monitored on an ongoing basis. Credit evaluations are performed on all customers requiring credit over a certain amount. The Group does not require collateral in respect of financial assets.

In respect of trade and other receivables and contract assets, individual credit evaluations are performed on all customers requiring credit over a certain amount. These evaluations focus on the customer's past history of making payments when due and current ability to pay, and may take into account information specific to the customer as well as pertaining to the economic environment in which the customer operates. The Group requires certain customers to pay deposits upfront and the remaining trade receivables are due within 1-180 days from the date of billing. Normally, the Group does not obtain collateral from customers.

The Group's exposure to credit risk is influenced mainly by the individual characteristics of each customer rather than the industry or country in which the customers operate and therefore significant concentrations of credit risk primarily arise when the Group has significant exposure to individual customers. At 31 December 2018, 4.7% (2017: 10.4%) and 15.3% (2017: 17.1%) of the total trade and other receivables and contract assets was due from the Group's largest customer and the five largest customers respectively.

The Group measures loss allowances for trade receivables and contract assets at an amount equal to lifetime ECLs, which is calculated using a provision matrix. As the Group's historical credit loss experience does not indicate significantly different loss patterns for different customer segments, the loss allowance based on past due status is not further distinguished between the Group's different customer bases.

The following table provides information about the Group's exposure to credit risk and ECLs for trade receivables and contract assets as at 31 December 2018:

	<b>Expected loss rate %</b>	<b>Gross carrying amount RMB'000</b>	<b>Loss allowance RMB'000</b>
Current (not past due)	<b>0.53%</b>	<b>1,418,264</b>	<b>(7,568)</b>
Less than 1 year past due	<b>1.00%</b>	<b>127,645</b>	<b>(1,276)</b>
More than 1 year but less than 2 years past due	<b>5.00%</b>	<b>113,421</b>	<b>(5,671)</b>
More than 2 years but less than 3 years past due	<b>15.00%</b>	<b>81,810</b>	<b>(12,272)</b>
More than 3 years past due	<b>66.52%</b>	<b>80,153</b>	<b>(53,314)</b>
		<b>1,821,293</b>	<b>(80,101)</b>



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018

(Expressed in RMB unless otherwise indicated)

### 25 FINANCIAL RISK MANAGEMENT AND FAIR VALUES *(Continued)*

#### (a) Credit risk *(Continued)*

##### **Comparative information under HKAS 39**

Prior to 1 January 2018, an impairment loss was recognised only when there was objective evidence of impairment (see note 2(j)(i) – policy applicable prior to 1 January 2018). At 31 December 2017, trade receivables of RMB78,860,000 were determined to be impaired. The aging analysis of trade debtors that were considered to be impaired was as follows:

	2017 RMB'000
Current	727,979
Less than 1 month past due	3,080
More than 1 month but less than 3 months past due	93,943
More than 3 month but less than 12 months past due	133,040
More than 12 months past due	184,901
	1,142,943

Receivables that were neither past due nor impaired related to a wide range of customers for whom there was no recent history of default.

Receivables that were past due but not impaired related to a number of independent customers that had a good track record with the Group. Based on past experience, management believed that no impairment allowance was necessary in respect of these balances as there had been no significant change in credit quality and the balances were still considered fully recoverable.

Movement in the loss allowance account in respect of trade receivables and contract assets during the year is as follows:

	<b>Loss allowance</b> RMB'000
Balance at 1 January 2017	53,933
Impairment losses recognised	24,927
Balance at 31 December 2017 under HKAS 39	78,860
Balance at 1 January 2018 under HKFRS 9	78,860
Impairment losses recognised	1,241
Balance at 31 December 2018	80,101

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)**25 FINANCIAL RISK MANAGEMENT AND FAIR VALUES** *(Continued)***(b) Liquidity risk**

The Group's policy is to regularly monitor its liquidity requirements and its compliance with lending covenants of each company, to ensure that it maintains sufficient reserves of cash and adequate committed lines of funding from major financial institutions to meet its liquidity requirements in the short and longer term.

The following table details the remaining contractual maturities at the end of reporting periods of the Group's non-derivative financial liabilities, which are based on contractual undiscounted cash flows (including interest payments computed using contractual rates or, if floating, based on rates current at the end of reporting period) and the earliest date the Group can be required to pay:

	2018			Balance sheet carrying amount RMB'000
	Contractual undiscounted cash flow			
	Within 1 year or on demand RMB'000	More than 1 year but less than 2 years RMB'000	Total RMB'000	
Trade and other payables measured at amortised costs	1,523,416	–	1,523,416	1,523,416
Loans and borrowings	244,058	–	244,058	239,820
	<b>1,767,474</b>	<b>–</b>	<b>1,767,474</b>	<b>1,763,236</b>

	2017			Balance sheet carrying amount RMB'000
	Contractual undiscounted cash flow			
	Within 1 year or on demand RMB'000	More than 1 year but less than 2 years RMB'000	Total RMB'000	
Trade and other payables measured at amortised costs	1,428,777	–	1,428,777	1,428,777
Loans and borrowings	249,408	–	249,408	242,306
Obligations under finance leases	169	–	169	169
	<b>1,678,354</b>	<b>–</b>	<b>1,678,354</b>	<b>1,671,252</b>



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018

(Expressed in RMB unless otherwise indicated)

## 25 FINANCIAL RISK MANAGEMENT AND FAIR VALUES *(Continued)*

### (c) Interest rate risk

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates. The Group's interest rate risk arises primarily from interest bearing long-term receivables, obligations under finance leases, loans and borrowings and other payables at variable rates that expose the Group to cash flow interest rate risk and fixed rates that expose the Group to fair value interest rate risk. The Group's interest rate profile as monitored by management is set out in (i) below.

#### (i) Interest rate profile

The following table details the interest rate profile of the Group's total borrowings at the end of reporting period:

	2018		2017	
	Effective interest rate %	Amounts RMB'000	Effective interest rate %	Amounts RMB'000
<b>Fixed rate instruments:</b>				
Loans and borrowings	5.18	91,760	4.95	93,230
Obligations under finance leases	–	–	3.57	169
		91,760		93,399
<b>Variable rate instruments:</b>				
Loans and borrowings	4.78	148,060	4.52	149,076
Less: interest bearing long-term receivables	6.86	65,751	6.86	65,751
		82,309		83,325
Total net borrowings		174,069		176,724
Fixed rate borrowings as a percentage of total net borrowings		52.7%		52.9%

#### (ii) Sensitivity analysis

At 31 December 2018, it is estimated that a general increase/decrease of 100 basis points in interest rates, with all other variables held constant, would have decreased/increased the Group's profit after taxation and retained profits by approximately RMB700,000 (2017: RMB708,000).

The sensitivity analysis above relates to the exposure to cash flow interest rate risk arising from floating rate non-derivative instruments held by the Group at the end of the reporting period, and the impact on the Group's profit after tax (and retained profits) is estimated as an annualised impact on interest exposure or income of such a change in interest rates. The analysis is performed on the same basis for 2017.



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)

### 25 FINANCIAL RISK MANAGEMENT AND FAIR VALUES *(Continued)*

#### (d) Currency risk

The Group is exposed to currency risk primarily through sales and purchases which give rise to receivables, payables and cash balances that are denominated in a foreign currency, i.e. a currency other than the functional currency of the operations to which the transactions related. The currencies giving rise to this risk are primarily Singapore Dollars, Hong Kong Dollars, Canadian Dollars and United States Dollars.

#### (i) Exposure to currency risk

The following table details the Group's exposure at the end of the reporting period to currency risk arising from recognised assets or liabilities denominated in a currency other than the functional currency of the entity to which they relate. For presentation purposes, the amounts of the exposure are shown in RMB translated using the spot rate at the year end date. Differences resulting from the translation of the financial statements of foreign operations into the Group's presentation currency are excluded.

	2018			
	Exposure to foreign currencies (expressed in RMB)			
	Singapore Dollars RMB'000	Canadian Dollars RMB'000	United States Dollars RMB'000	Hong Kong Dollars RMB'000
Trade and other receivables	344	25,251	2,983	–
Cash and cash equivalents	2,581	1	3,869	1,886
Trade and other payables	(395)	–	–	(1,830)
Net exposure arising from recognised assets and liabilities	2,530	25,252	6,852	56

	2017			
	Exposure to foreign currencies (expressed in RMB)			
	Singapore Dollars RMB'000	Canadian Dollars RMB'000	United States Dollars RMB'000	Hong Kong Dollars RMB'000
Trade and other receivables	588	75,988	4,160	–
Cash and cash equivalents	4,824	–	3,204	3,926
Trade and other payables	(396)	–	–	–
Net exposure arising from recognised assets and liabilities	5,016	75,988	7,364	3,926



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018

(Expressed in RMB unless otherwise indicated)

### 25 FINANCIAL RISK MANAGEMENT AND FAIR VALUES *(Continued)*

#### (d) **Currency risk** *(Continued)*

##### (ii) **Sensitivity analysis**

The following table indicates the instantaneous change in the Group's profit after taxation (and retained profits) that would arise if foreign exchange rates to which the Group has significant exposure at the end of reporting period had changed at that date, assuming all other risk variables remained constant.

	2018		2017	
	Increase/ (decrease) in foreign exchange rates	Effect on profit after tax and retained profits RMB'000	Increase/ (decrease) in foreign exchange rates	Effect on profit after tax and retained profits RMB'000
Singapore Dollars	5% (5)%	105 (105)	5% (5)%	192 (192)
Canadian Dollars	5% (5)%	1,048 (1,048)	5% (5)%	3,153 (3,153)
United States Dollars	5% (5)%	308 (308)	5% (5)%	326 (326)
Hong Kong Dollars	5% (5)%	3 (3)	5% (5)%	167 (167)

Results of the analysis as presented in the above table represent an aggregation of the instantaneous effects on each of the Group's entities' profit after tax and retained profits measured in the respective functional currencies, translated into RMB at the exchange rate ruling at the end of reporting period for presentation purposes.

The sensitivity analysis assumes that the change in foreign exchange rates had been applied to re-measure those financial instruments held by the Group which expose the Group to foreign currency risk at the end of reporting period, including inter-company payables and receivables within the Group which are denominated in a currency other than the functional currencies of the lender or the borrower. The analysis excludes differences that would result from the translation of the financial statements of foreign operations into the Group's presentation currency. The analysis is performed on the same basis for 2017.



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)

### 25 FINANCIAL RISK MANAGEMENT AND FAIR VALUES *(Continued)*

#### (e) Fair values

##### (i) *Financial assets and liabilities measured at fair value*

There were no financial instruments measured at fair value at the end of the reporting periods.

##### (ii) *Fair values of financial instruments carried at other than fair value*

The carrying amounts of the Group's financial instruments carried at cost or amortised cost are not materially different from their fair value at 31 December 2018.

### 26 COMMITMENTS

#### (a) Capital commitments

Capital commitments outstanding at 31 December 2018 not provided for in the financial statements were as follows:

	2018 RMB'000	2017 RMB'000
Contracted for	114,592	131,121

#### (b) Operating lease commitments

At 31 December 2018, the total future minimum lease payments under non-cancellable operating leases were payable as follows:

	2018 RMB'000	2017 RMB'000
Within 1 year	14,916	15,758
After 1 year but within 5 years	4,168	8,327
	19,084	24,085

The Group leases a number of properties under operating leases. The leases typically run for an initial period of one to five years, at the end of which period all terms are negotiated. None of the leases includes contingent rentals at 31 December 2017 and 2018.



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)

### 27 MATERIAL RELATED PARTY TRANSACTIONS

**(a) Name and relationship with related parties**

During the years ended 31 December 2017 and 2018, transactions with the following parties are considered as related party transactions:

**Name of parties**

Tsinghua Tongfang Co., Ltd. ("THTF") \*(同方股份有限公司)

Tsinghua Tongfang Artificial Environment Co., Ltd. \* ("Tongfang Artificial") (同方人工環境有限公司)

Liaoning Tongfang Security Technology Co., Ltd.\* (遼寧同方安全技術有限公司)

Beijing Tongfang Property Management Co., Ltd.\* (北京同方物業管理有限公司)

NUCTECH Co., Ltd.\* (同方威視技術股份有限公司)

Tongfang Kawasaki Advanced Energy-saving Machine Co., Ltd.\* ("Tongfang Kawasaki")  
(同方節能裝備有限公司)

Tongfang Technology Park Co., Ltd.\* (同方科技園有限公司)

\* The official name of these entities is in Chinese. The English translation of the name is for reference only.

THTF is the controlling shareholder of the Company, incorporated in the PRC and produces financial statements available for public use. Other related parties listed above are subsidiaries of THTF.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**

For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)

**27 MATERIAL RELATED PARTY TRANSACTIONS** *(Continued)***(b) Significant related party transactions**

Particulars of significant related party transactions during the years ended 31 December 2018 and 2017 are as follows:

	2018 RMB'000	2017 RMB'000
Sales to THTF and its subsidiaries	65,742	113,340
Purchases from THTF and its subsidiaries	99,342	132,998
Payment for miscellaneous products and services from THTF and its subsidiaries	25,927	25,705
Proceeds from loans from Tongfang Artificial	2,936	3,242
Repayment of loans to Tongfang Artificial	–	10,000
Payments transferred by THTF to the Group	1,378,789	940,824
Payments transferred by the Group to THTF	953,991	796,649

Other than the above related party transactions, certain trademarks are used by the Group in the PRC licensed by THTF at nil consideration.

**(c) Amounts due from/(to) related parties**

At 31 December 2018 and 2017, the Group had the following balances with THTF and its subsidiaries:

	2018 RMB'000	2017 RMB'000
Trade and other receivables	65,247	79,202
Trade and other payables	(145,662)	(146,322)
Loans from related parties	(69,520)	(66,576)

The loans from related parties bear interest at loan interest rate stipulated by People's bank of China for the corresponding period, and are unsecured.



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)

### 27 MATERIAL RELATED PARTY TRANSACTIONS (Continued)

#### (d) Key management personnel remuneration

Remuneration for key management personnel of the Group, including amounts paid to the Company's executive directors as disclosed in note 8 and certain of the highest paid employees as disclosed in note 9, is as follows:

	2018 RMB'000	2017 RMB'000
Short term employee benefits	2,356	2,539
Post-employment benefits	–	48
	2,356	2,587

Total remuneration was included in "staff costs" (see note 6(b)).

- (e) The related party transactions in respect of sales, purchases, payments transferred by THTF to the Group, payments transferred by the Group to THTF, and receipts of miscellaneous products and services above constitute continuing connected transactions as defined in Chapter 14A of the Listing Rules. The disclosures required by Chapter 14A of the Listing Rules are provided in the reports of the directors. The related party transaction in respect of financial assistance received from THTF constitutes a continuing connected transaction as defined in Chapter 14A of the Listing Rules, however, they are exempt from the disclosure requirements in Chapter 14A of the Listing Rules.

#### (f) Transactions with other state-controlled entities in the PRC

The controlling shareholder of the Company, THTF, is a state-controlled enterprise controlled by the PRC government. Apart from transactions with THTF and its subsidiaries and associate which were disclosed in note 27(a) above, the Group also has transactions with other state-controlled entities, included but not limited to the following:

- sales of products and provision of services;
- purchase of materials; and
- bank deposits and borrowings.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)**28 COMPANY-LEVEL STATEMENT OF FINANCIAL POSITION**

	Note	31 December 2018 RMB'000	31 December 2017 (Note) RMB'000
<b>Non-current assets</b>			
Property, plant and equipment		1,156	1,626
Intangible assets		4	4
Investments in subsidiaries		1,705,851	1,624,078
		<b>1,707,011</b>	1,625,708
<b>Current assets</b>			
Trade and other receivables		32,454	89,504
Cash and cash equivalents		67,827	21,938
		<b>100,281</b>	111,442
<b>Current liabilities</b>			
Trade and other payables		14,929	14,364
Obligations under finance leases		–	169
		<b>14,929</b>	14,533
<b>Net current assets</b>		<b>85,352</b>	96,909
<b>Total assets less current liabilities</b>		<b>1,792,363</b>	1,722,617
<b>NET ASSETS</b>		<b>1,792,363</b>	1,722,617
<b>CAPITAL AND RESERVES</b>			
	24		
Share capital		1,189,968	1,191,209
Reserves		602,395	531,408
<b>TOTAL EQUITY</b>		<b>1,792,363</b>	1,722,617

Note: The Group has initially applied HKFRS15 and 9 at 1 January 2018. Under the transition methods chosen, comparative information is not restated. See note 2(c).

Approved and authorised for issue by the board of directors on 20 March 2019.

**Zhao Xiaobo**  
**Qin Xuzhong**

)  
)  
)

*Directors*



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018

(Expressed in RMB unless otherwise indicated)

## 29 ACCOUNTING ESTIMATES AND JUDGEMENTS

### Key sources of estimation uncertainty

The Group believes the following critical accounting policies involve the significant judgements and estimates used in the preparation of the financial statements.

Information about assumptions and estimation uncertainties that may have a significant risk of resulting in a material adjustment in the year ending 31 December 2019 are included in the following notes:

#### (i) **Construction projects**

As explained in policy note 2(t), revenue from construction projects are recognised over time. Such revenue and profit recognition on uncompleted projects is dependent on estimating the total outcome of the project, as well as the work done to date. Based on the Group's recent experience and the nature of the manufacturing and construction activities undertaken by the Group, the Group has made estimates of the point at which it considered the work was sufficiently advanced such that the outcome of the contract can be reasonably measured. Until this point is reached the related contract assets disclosed in note 16 do not include profit which the Group might eventually realise from the work done to date. In addition, actual outcomes in terms of total cost or revenue may be higher or lower than estimated at the end of the reporting period, which would affect the revenue and profit recognised in future years as an adjustment to the amounts recorded to date.

#### (ii) **Valuation of contract assets and trade receivables**

The management measures loss allowances on contract assets and trade receivables at amounts equal to lifetime ECL using a provision matrix which involved significant management judgement in estimating loss rate and adjusting factors that are specific to the debtors and an assessment of both the current and forecast industries in which they operate at the reporting date.

Information about other judgements made and estimates applied are included in the following notes:

#### (i) Net realisable value of inventories

Net realisable value of inventories is the estimated selling price in the ordinary course of business, less estimated costs of completion and distribution expenses. These estimates are based on the current market condition and historical experience of selling products of similar nature. It could change significantly as a result of competitor actions in response to changes in market conditions. Management reassesses these estimations at the end of the reporting period to ensure inventory is shown at the lower of cost and net realisable value.

#### (ii) Impairment losses of non-current assets

In considering the impairment losses that may be required for certain of the Group's assets which include property, plant and equipment, lease prepayments and intangible assets, recoverable amount of the asset needs to be determined. The recoverable amount is the greater of the fair value less costs to sell and the value in use. It is difficult to precisely estimate selling price because quoted market prices for these assets may not be readily available. In determining the value in use, expected cash flow generated by the asset are discounted to their present value, which requires significant judgment relating to items such as level of revenue and amount of operating costs. The Group uses all readily available information in determining an amount that is reasonable approximation of recoverable amount, including estimates based on reasonable and supportable assumptions and projections of items such as revenue and amount of operating costs.

#### (iii) **Depreciation**

Items of property, plant and equipment are depreciated on a straight-line basis over the estimated useful lives of the assets, after taking into account the estimated residual value. The management reviews the estimated useful lives of the assets regularly in order to determine the amount of depreciation expense to be recorded during any reporting period. The useful lives are based on the Group's historical experience with similar assets and taking into account anticipated technological changes. The depreciation expense for future periods is adjusted if there are significant changes from previous estimates.



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018  
(Expressed in RMB unless otherwise indicated)

### 29 ACCOUNTING ESTIMATES AND JUDGEMENTS *(Continued)*

#### Key sources of estimation uncertainty *(Continued)*

##### *(iv) Income tax*

Determining income tax provisions involves judgement on the future tax treatment of certain transactions. The management carefully evaluates tax implications of transactions and tax provisions are set up accordingly. The tax treatment of these transactions is reconsidered periodically to take into account all changes in tax legislations. Deferred tax assets are recognised for deductible temporary differences and unused tax losses. As those deferred tax assets can only be recognised to the extent that it is probable that future taxable profit will be available against which they can be utilised, management's judgement is required to assess the probability of future taxable profits. Management's assessment is constantly reviewed and additional deferred tax assets are recognised if it becomes probable that future taxable profits will allow the deferred tax assets to be recovered.

Deferred tax liability was not recognised in respect of the withholding income tax that would be payable on the distribution of retained profits of the Company's subsidiaries as the Company considers that it is probable that such profits will not be distributed in the foreseeable future. Any changes in dividend policy may result in the recognition of the related deferred tax liabilities.

##### *(v) Development costs*

Critical judgement by the Group's management is applied when deciding whether the recognition requirements for development costs have been met. This is necessary as the economic success of any product development is uncertain and may be subject to future technical problems at the time of recognition. Judgements are based on the best information available at the end of the reporting period. In addition, all internal activities related to the research and development of new products is continuously monitored by the Group management.

### 30 COMPARATIVE FIGURES

The Group has initially applied HKFRS 15 and HKFRS 9 at 1 January 2018. Under the transition methods chosen, comparative information is not restated. Further details of the changes in accounting policies are disclosed in note 2(c).

### 31 POSSIBLE IMPACT OF AMENDMENTS, NEW STANDARDS AND INTERPRETATIONS ISSUED BUT NOT YET EFFECTIVE DURING THE YEAR ENDED 31 DECEMBER 2018

Up to the date of issue of these financial statements, the HKICPA has issued a number of amendments and new standards which are not yet effective for the year ended 31 December 2018 and which have not been adopted in these financial statements. These include the following which may be relevant to the Group.

	<b>Effective for accounting periods beginning on or after</b>
HKFRS 16, <i>Leases</i>	1 January 2019
HK (IFRIC)23, <i>Uncertainty over income tax treatments</i>	1 January 2019
Annual Improvements to HKFRSs 2015-2017 Cycle	1 January 2019
Amendments to HKAS 28, <i>Long-term interest in associates and joint ventures</i>	1 January 2019



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018

(Expressed in RMB unless otherwise indicated)

### 31 POSSIBLE IMPACT OF AMENDMENTS, NEW STANDARDS AND INTERPRETATIONS ISSUED BUT NOT YET EFFECTIVE DURING THE YEAR ENDED 31 DECEMBER 2018 *(Continued)*

The Group is in the process of making an assessment of what the impact of these amendments, new standards and interpretations is expected to be in the period of initial application. So far the Group has identified some aspects of HKFRS 16 which may have a certain impact on the consolidated financial statements. Further details of the expected impacts are discussed below. While the assessment has been substantially completed for HKFRS 16, the actual impacts upon the initial adoption of the standards may differ as the assessment completed to date is based on the information currently available to the Group, and further impacts may be identified before the standards are initially applied in the Group's interim financial report for the six months ending 30 June 2019. The Group may also change its accounting policy elections, including the transition options, until the standard is initially applied in that financial report.

#### **HKFRS 16, Leases**

As disclosed in note 2(i), currently the Group classifies leases into finance leases and operating leases and accounts for the lease arrangements differently, depending on the classification of the lease. The Group enters into some leases as the lessee.

HKFRS 16 is not expected to impact significantly on the way that lessors account for their rights and obligations under a lease. However, once HKFRS 16 is adopted, lessees will no longer distinguish between finance leases and operating leases. Instead, subject to practical expedients, lessees will account for all leases in a similar way to current finance lease accounting, i.e. at the commencement date of the lease the lessee will recognise and measure a lease liability at the present value of the minimum future lease payments and will recognise a corresponding "right-of-use" asset. After initial recognition of this asset and liability, the lessee will recognise interest expense accrued on the outstanding balance of the lease liability, and the depreciation of the right-of-use asset, instead of the current policy of recognising rental expenses incurred under operating leases on a systematic basis over the lease term. As a practical expedient, the lessee can elect not to apply this accounting model to short-term leases (i.e. where the lease term is 12 months or less) and to leases of low-value assets, in which case the rental expenses would continue to be recognised on a systematic basis over the lease term.

HKFRS 16 will primarily affect the Group's accounting as a lessee of leases for property, plant and equipment which are currently classified as operating leases. The application of the new accounting model is expected to lead to an increase in both assets and liabilities and to impact on the timing of the expense recognition in the income statement over the period of the lease.

HKFRS 16 is effective for annual periods beginning on or after 1 January 2019. As allowed by HKFRS 16, the Group plans to use the practical expedient to grandfather the previous assessment of which existing arrangements are, or contain, leases. The Group will therefore apply the new definition of a lease in HKFRS 16 only to contracts that are entered into on or after the date of initial application. In addition, the Group plans to elect the practical expedient for not applying the new accounting model to short-term leases and leases of low-value assets.

The Group plans to elect to use the modified retrospective approach for the adoption of HKFRS 16 and will recognise the cumulative effect of initial application as an adjustment to the opening balance of equity at 1 January 2019 and will not restate the comparative information. As disclosed in note 26(b), at 31 December 2018 the Group's future minimum lease payments under non-cancellable operating leases amount to RMB19,084,000 for properties, the majority of which is payable within 1 year. Upon the initial adoption of HKFRS 16, the opening balances of lease liabilities and the corresponding right-of-use assets will be adjusted accordingly, after taking into account the effects of discounting, as at 1 January 2019. The Group is still in the process to determine the amounts of new assets and liabilities arising from operating lease commitments on adoption of HKFRS 16.

There are no other amendments and new standards that are not yet effective that would be expected to have a material impact on the Group's consolidated financial statements.