



THE HONG KONG AND
CHINA GAS COMPANY LIMITED
(STOCK CODE: 3)



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ANNUAL  
REPORT  
2018  
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A photograph of a man in profile, wearing a blue beanie and glasses, smiling and looking towards a child. The background is a soft-focus outdoor scene with greenery. The text 'Creating Shared Value' is overlaid on the right side of the image.

Creating Shared Value

At Towngas, our businesses create economic value not only for our shareholders but for the people we serve in Hong Kong and across mainland China. Through our gas, water and other green businesses, we provide the environmentally-friendly products and services that enable our customers to live a truly green lifestyle. Through the innovative research we carry out, we are addressing environmental challenges and contributing to a better world for future generations.

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2018 HIGHLIGHTS



We operate **131 city-gas projects in mainland cities** spread across 23 provinces, autonomous regions and municipalities, with gas sales totalling **23,000 million cubic metres**, an increase of 18 per cent over 2017.

We commissioned our **underground salt-cavern gas storage facility** in Jintan, Jiangsu province, which will enable us to ensure a stable supply of gas during the winter months when demand is at its peak.

We invested in **Foshan Water Environmental Protection Co., Ltd**, our first water services project in the Greater Bay Area.

ECO successfully produced **hydro-treated vegetable oil (HVO)** at our plant in Zhangjiagang, Jiangsu province, and delivered two shipments totalling 7,000 tonnes to customers in Europe, which will contribute significantly to carbon reduction.

2018 AWARDS AND RECOGNITIONS



Global 2000
by Forbes

**Industry Cares 2018
CSR Recognition Scheme**

- The Grand Caring Award (Enterprise Group)
 - The Most Innovative Award (Enterprise Group)
- by The Federation of Hong Kong Industries



The 9th Hong Kong Outstanding Corporate Citizenship Awards

- Gold Award - Enterprise Category
- Gold Award - Volunteer Team Category

by The Hong Kong Productivity Council

Energy Project of the Year (Asia Pacific Rim Region)

by The Association of Energy Engineers



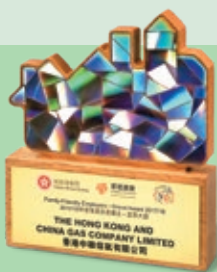


In Tangshan, Hebei province, ECO began constructing a pilot project for **converting agricultural waste** into furfural and paper pulp using our innovative proprietary technology, a giant step towards a green economy.

In Inner Mongolia Autonomous Region, ECO started producing **premium grade ethylene glycol**, a main ingredient in the manufacture of polyester, for mainland China's massive textile industry.

We organised our first **Green Flame Project** – Inter-School VR Game Design Competition to enhance students' green awareness through the use of new technology.

A Towngas Chef Anchor Volunteer Team was established to reach elderly people with Mild Cognitive Impairment.



IFAPC Outstanding Listed Company Award 2018

by The Hong Kong Institute of Financial Analysts and Professional Commentators Limited



Constituent Companies of the Hang Seng Corporate Sustainability Index Series

(Towngas and Towngas China)

by Hang Seng Indexes Company Limited

2017/18 Family-Friendly Employers Award Scheme

- Family-Friendly Employers – Grand Award
- Special Mention (Gold)
- Awards For Breastfeeding Support

by The Home Affairs Bureau and the Family Council

2018 Hong Kong Awards for Industries: Innovation and Creativity Award

by The Hong Kong General Chamber of Commerce



BUSINESS COVERAGE IN 2018

Towngas (Stock Code: 3)

Piped City-Gas Projects

Guangdong Province

1. Panyu
2. Zhongshan
3. Dongyong
4. Shenzhen
5. Chaoan
6. Chaozhou Raoping

Central China

7. Wuhan
8. Xinmi

Eastern China

9. Yixing
10. Taizhou
11. Zhangjiagang
12. Wujiang
13. Xuzhou
14. Suining
15. Fengxian
16. Peixian
17. Danyang
18. Jintan
19. Tongling
20. Suzhou Industrial Park
21. Changzhou
22. Nanjing
23. Fengcheng
24. Pingxiang
25. Jiangxi
26. Zhangshu
27. Yonganzhou
28. Hangzhou

Shandong Province

29. Jinan East

Northern China

30. Jilin
31. Beijing Economic-technological Development Area
32. Hebei Jingxian

Northwestern China

33. Xi'an

Hainan Province

34. Qionghai

Midstream Projects

35. Guangdong LNG
36. Anhui NG
37. Hebei NG
38. Jilin NG
39. Henan NG
40. Jintan NG (Phase 1)
41. Jintan NG (Phase 2)
42. Huanghua Port LNG

LNG Refilling Station

43. Nanjing (Marine)

Water/Waste Treatment Projects

44. Wujiang
45. Suzhou Industrial Park
46. Wuhu
47. Suzhou Industrial Park (Industrial Wastewater Treatment)
48. Maanshan
49. Jiangbei
50. Suzhou Industrial Park (Food Waste Processing and Utilisation)
51. Foshan Water Environmental Protection

New Energy Projects

Coal Mining

52. Inner Mongolia Ordos Kejian

Coal-based Chemical

53. Jiangxi Fengcheng
54. Inner Mongolia Ordos

CNG/LNG Refilling Stations

55. Shaanxi Xianyang
56. Shaanxi Huitai
57. Shaanxi Lueyang
58. Shaanxi Fengxiang
59. Shaanxi Shenmu
60. Shaanxi Baoji
61. Shaanxi Zhouzhi
62. Shaanxi Weinan Gushi
63. Shaanxi Weinan Tianshi
64. Shaanxi Hancheng
65. Shanxi Yuanping
66. Shanxi Lingshi
67. Shanxi Xinzhou
68. Shandong Chiping
69. Shandong Dongping
70. Shandong Jiexiang
71. Shandong Weishan
72. Shandong Shanxian
73. Shandong Linqing
74. Shandong Heze
75. Hebei Shijiazhuang
76. Xingtai (Gangxing)
77. Xingtai (Xinghua)
78. Henan Xinmi
79. Henan Anyang
80. Henan Kaifeng
81. Henan Linzhou
82. Henan Nanyang
83. Henan Wuyang
84. Inner Mongolia Huhhot
85. Inner Mongolia Wulatezhong Qi
86. Inner Mongolia Xiwuzhumuqin Qi
87. Inner Mongolia Chifeng
88. Inner Mongolia Chaha'eryouyiqian Qi
89. Inner Mongolia Xilingol
90. Inner Mongolia Ulanqab Huade
91. Inner Mongolia Ulanqab Chahar
92. Inner Mongolia Bayannur Uradqian Qi
93. Inner Mongolia Bayannur Linhe
94. Inner Mongolia Bayannur Hanggin
95. Ningxia Guangwuxian
96. Ningxia Qingtongxia
97. Ningxia Jinyintan
98. Ningxia Zhongwei
99. Ningxia Zhongwei Haixing Development Zone
100. Jiangsu Xuzhou
101. Anhui Maanshan
102. Jiangxi Pengze
103. Guangdong Guangzhou

Upstream Projects

104. Shanxi LCBM
105. Jilin Tianyuan
106. Xuzhou COG

Coal Logistic Project

107. Shandong Jining Jiaxianggang Logistic Port

Biomass

108. Zhangjiagang
109. Hubei Xingzhou
110. Luanzhou

Oilfield Project

111. Phetchabun Province in Thailand

Telecommunication Projects

112. Shandong Jinan
113. Shandong Jinan Chibo
114. Shandong Laiyang
115. Xuzhou Fengxian
116. Xuzhou Peixian
117. Liaoning Dalian DETA
118. Dalian Yida
119. Harbin
120. Beijing Zhongjing
121. Beijing Chibo
122. Dongguan
123. Shenzhen (Qianhai)
124. Shenzhen (Interlink Connectivity)

Other Projects

125. Shenyang Sanquan Construction Supervisory
126. ECO Engineering Management (Xi'an)
127. Suzhou Industrial Park Broad Energy Services
128. GH Yixing Ecology
129. Dalian (New Energy Technology)
130. M-Tech
131. GH-Fusion
132. G-Tech
133. Towngas Technology
134. S-Tech (Zhuhai)
135. ECO Engineering Management (Shenzhen)
136. Towngas Life Style
137. Towngas Payment Technology (Shenzhen)
138. Hong Kong & China Gas International Energy Trading
139. Mia Cucina Kitchen Cabinets (Shenzhen)
140. Inner Mongolia Ordos Carbon Material

Towngas China (Stock Code: 1083)

Piped City-Gas Projects

Guangdong Province

141. Foshan
142. Shaoguan
143. Qingyuan
144. Yangdong
145. Fengxi
146. Nanjing Gaochun
147. Dafeng
148. Tongshan
149. Hubei Zhongxiang
150. Maanshan
151. Bowang
152. Zhengpugang Xin Qu Modern Industrial Zone

Eastern China

153. Wuhu Fanchang
154. Wuhu Jiangbei
155. Anqing
156. Chizhou
157. Tunxi
158. Huangshan
159. Huizhou
160. Tongxiang
161. Huzhou
162. Yuhang
163. Songyang
164. Changjiu
165. Fuzhou
166. Jiujiang
167. Wuning
168. Xiushui
169. Yifeng
170. Changting

Shandong Province

171. Jimo
172. Laoshan
173. Zibo
174. Zibo Lubo
175. Longkou
176. Jinan West
177. Weifang
178. Weihai
179. Taian
180. Chiping
181. Linqu
182. Laiyang
183. Zhaoyuan
184. Pingyin
185. Feicheng
186. Boxing Economic Development Zone
187. Yangxin
188. Wulian

Hunan Province

189. Miluo

Northeastern China

190. Benxi
191. Chaoyang
192. Tieling
193. Fuxin
194. Shenyang Coastal Economic Zone
195. Yingkou
196. Dalian Changxingdao
197. Dalian Economic and Technical Development Zone
198. Anshan
199. Lvshan
200. Kazuo
201. Beipiao
202. Wafangdian
203. Xinqiu
204. Jianping

205. Changchun
206. Gongzhuling
207. Siping
208. Qiqihar

Hebei Province

209. Qinhuangdao
210. Yanshan
211. Cangxian
212. Mengcun
213. Shijiazhuang

Inner Mongolia

214. Baotou

Southwestern China

215. Ziyang
216. Weiyuan
217. Pengxi
218. Lezhi
219. Pingchang
220. Dayi
221. Yuechi
222. Cangxi
223. Chengdu
224. Zhongjiang
225. Jiayang
226. Pengshan
227. Mianyang
228. Xinjin
229. Xindu
230. Mianzhu
231. Jiayang
232. Qijiang
233. Guilin
234. Zhongwei (Fusui)
235. Xingyi
236. Luliang
237. Liujiang District, Liuzhou

Midstream Projects

238. Xuancheng NG
239. Taian Taigang
240. Inner Mongolia NG
241. Jinan-Liaocheng Pipeline & Chiping South Citygate

CNG Refilling Stations

242. Qiqihar (Lianfu)
243. Qiqihar (Xingqixiang)

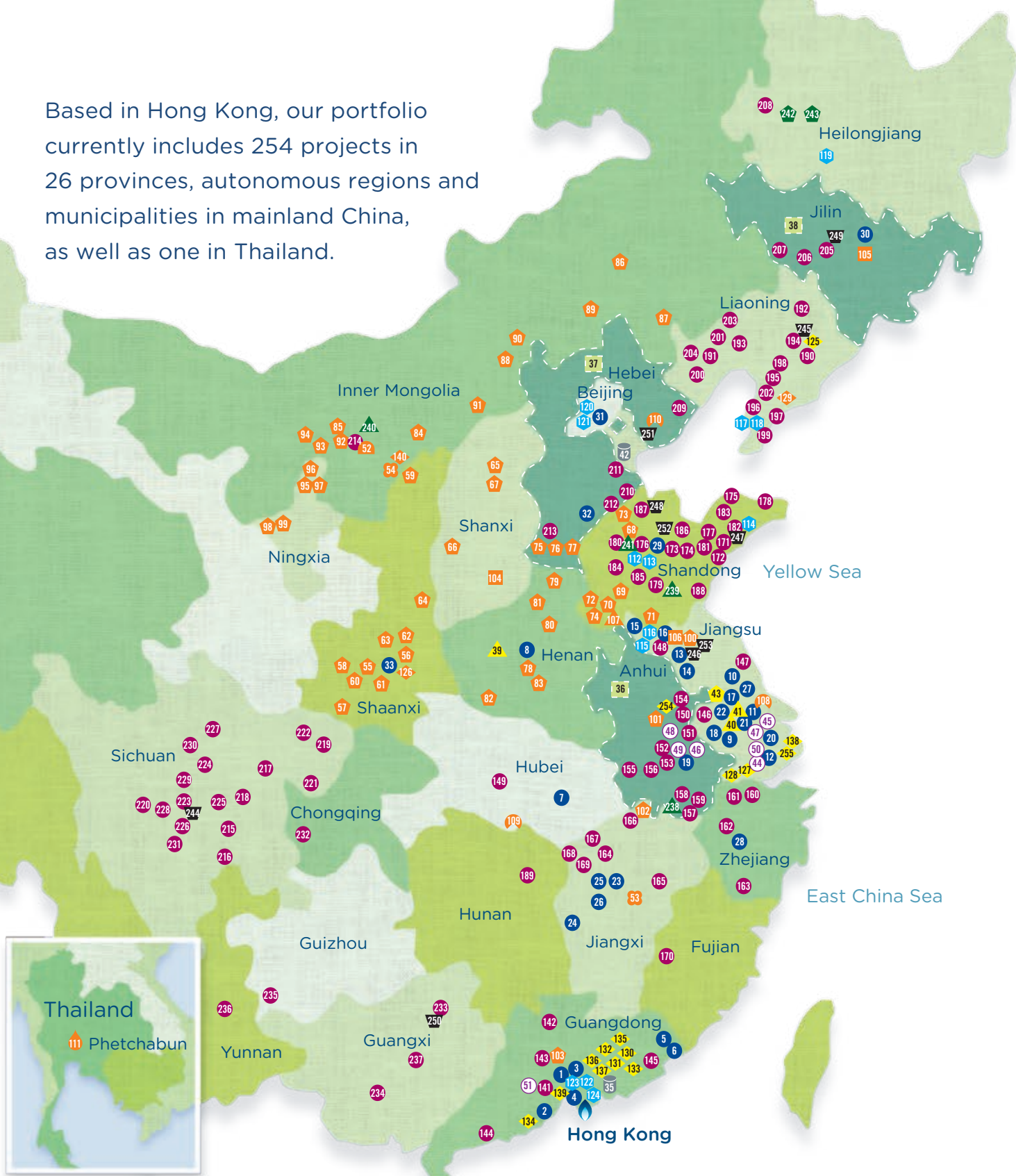
Distributed Energy Systems

244. Sichuan
245. Shenyang Economic and Technical Development Zone
246. Jiawang District, Xuzhou
247. Jimo Chuangzhi New District, Qingdao
248. Yangxin Economic & Technological Development Zone, Binzhou
249. Changchun
250. Guilin
251. Tangshan Chengnan Economic Development Zone
252. Boxing Economic Development Zone, Binzhou
253. Xuzhou Biomedical Industrial Park

Other Projects

254. Zhuojia Public Engineering
255. Towngas Natural Gas Sales

Based in Hong Kong, our portfolio currently includes 254 projects in 26 provinces, autonomous regions and municipalities in mainland China, as well as one in Thailand.



- Towngas Group Hong Kong headquarters
- Piped city-gas projects (Towngas)
- Piped city-gas projects (Towngas China)
- Liquefied natural gas receiving station
- Provincial natural gas pipeline network
- City high pressure pipeline network / Underground gas storage (Towngas)
- City high pressure pipeline network (Towngas China)
- Distributed energy system
- LNG refilling stations (Towngas)
- CNG refilling stations (Towngas China)
- Water / Waste treatment projects
- Telecommunication projects
- Coal mining
- Coal-based chemical processing
- Upstream projects
- Coal logistic project
- CNG / LNG refilling stations (Towngas)
- Biomass
- Other projects (New Energy)
- Oilfield project
- Other projects

BUSINESS HIGHLIGHTS

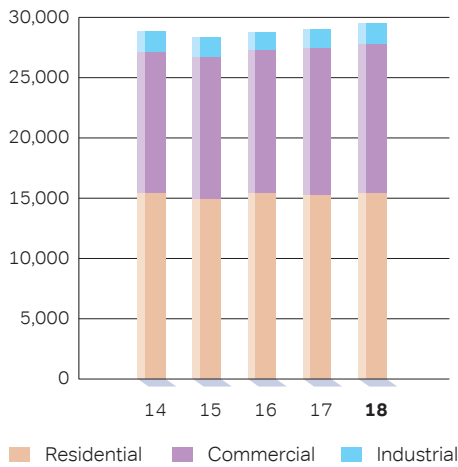
	2018	2017	Change %
Operating (Company)			
Number of Customers as at 31st December	1,908,511	1,883,407	+1
Number of Customers per km of Mains	562	558	+1
Installed Capacity, thousand m ³ per hour	525	525	–
Peak Hourly Demand, thousand m ³	555	485	+14
Town Gas Sales, million MJ	29,550	29,049	+2
Number of Employees as at 31st December	2,052	2,022	+1
Number of Customers per Employee	930	931	–
Financial			
Revenue, HK million dollars	39,073	32,477	+20
Profit Attributable to Shareholders, HK million dollars	9,313	8,225	+13
Dividends, HK million dollars	5,385	4,896	+10
Shareholders			
Issued Shares, million of shares	15,386	13,988	+10
Shareholders' Funds, HK million dollars	62,401	60,439	+3
Earnings per Share, HK cents	60.5	53.5*	+13
Dividends per Share, HK cents	35.0	31.8*	+10
Shareholders' Funds, HK dollars per share	4.06	3.93*	+3
Number of Shareholders as at 31st December	13,768	13,550	+2

* Adjusted for the bonus share issue in 2018

FIVE-YEAR SUMMARY

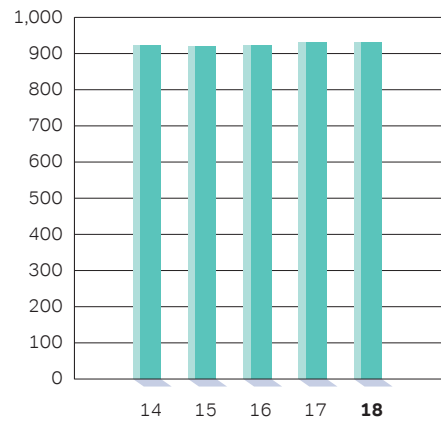
Town Gas Sales

Company (million MJ)



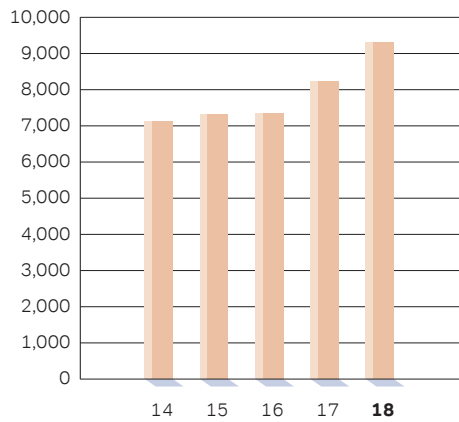
Number of Customers per Employee

Company



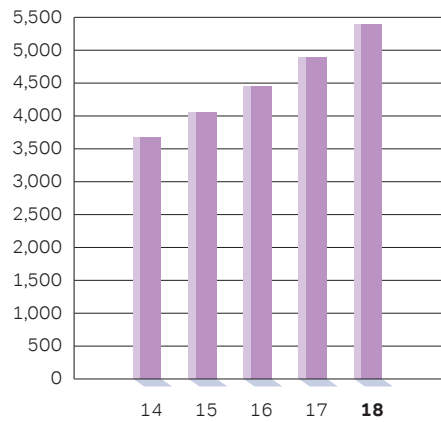
Profit Attributable to Shareholders

(HK\$ million)



Dividends

(HK\$ million)



Chairman's Statement



The Year's Results

The Group's town gas business in Hong Kong maintained stable development in 2018. Concurrently, the Group's city-gas businesses in mainland China and emerging environmentally-friendly energy businesses progressed well, thus bringing good growth to the Group's overall recurrent businesses during the year.

Profit after taxation attributable to shareholders of the Group for the year amounted to HK\$9,313 million, an increase of HK\$1,088 million, up by 13.2 per cent, compared to 2017. Earnings per share for the year amounted to HK60.5 cents. Exclusive of the Group's share of a revaluation surplus from the International Finance Centre complex, the Group's profit after taxation for the year was

HK\$7,283 million, an increase of HK\$275 million, up by approximately 4 per cent compared to 2017 mainly attributable to the growth of the Group's local and mainland businesses.

During the year under review, the Group invested HK\$6,746 million in production facilities, pipelines, plants and other fixed assets for the sustainable development of its various existing and new businesses in Hong Kong and mainland China.

Town Gas Business in Hong Kong

The local economy maintained moderate growth in 2018. Favourable overall employment conditions and growth in the number of inbound visitors, driven by the commissioning of cross-boundary infrastructure, helped gas business

development in the restaurant and hotel sectors. Benefiting from a rise in residential, commercial and industrial gas sales, total volume of gas sales in Hong Kong for 2018 reached 29,550 million MJ, an increase of 1.7 per cent compared to 2017, whilst total number of appliances sold in 2018 was over 283,000 units, an increase of 3 per cent compared to 2017.

As at the end of 2018, the number of customers was 1,908,511, an increase of 25,104 compared to 2017, up slightly by 1.3 per cent.

Business Development in Mainland China

The Group's mainland businesses continued to progress steadily during 2018. Overall, inclusive of projects of the Group's subsidiary, Towngas China Company Limited

(“Towngas China”; stock code: 1083.HK), the Group had 254 projects on the mainland, as at the end of 2018, nine more than at the end of 2017, spread across 26 provinces, autonomous regions and municipalities. These projects encompass upstream, midstream and downstream natural gas sectors, water sectors, efficient energy applications and exploration and utilisation of emerging environmentally-friendly energy, as well as telecommunications.

The Group’s development of emerging environmentally-friendly energy businesses in mainland China, including coalbed methane liquefaction, coal chemicals, conversion and utilisation of biomass, utilisation of industrial and agricultural waste as well as natural gas refilling stations, through its wholly-owned subsidiary ECO Environmental Investments Limited and the latter’s subsidiaries (collectively known as “ECO”), is progressing steadily. Benefiting from international oil prices maintained at a relatively good level during the first three quarters of 2018, ECO recorded stable profit growth during the year. ECO’s in-house research and development of innovative technologies is also progressing well with a number of achieved results gradually being applied commercially. Gradual commissioning and development of related projects are expected to contribute to the long-term business growth of the Group.

Diversification and an increase in the number of projects have gradually transformed the Group from a locally-based company in Hong Kong centred on a single town gas business a number of years ago into a sizable, nationwide, multi-business corporation focused on environmentally-friendly energy ventures and utility sectors.

Utility Businesses in Mainland China

The Group’s city-gas businesses are progressing well. As at the end of 2018, inclusive of Towngas China, the Group had a total of 131 city-gas projects in mainland cities spread across 23 provinces, autonomous regions and municipalities.

The total volume of gas sales for these projects in 2018 was approximately 23,000 million cubic metres, an increase of 18 per cent over 2017. As at the end of 2018, the Group’s mainland gas customers stood at approximately 27.54 million, an increase of 9 per cent over 2017. The Group continues to have a good reputation as a large-scale city-gas enterprise with outstanding overall performance on the mainland.

The mainland’s economic growth slowed in 2018 compared to 2017 under the impact of international trade tensions. In addition, the exchange rate risk arising from devaluation of the renminbi during the second half of 2018 also created challenges for the Group’s mainland businesses. Nevertheless, despite this

adverse international business environment, the mainland’s volume of exports increased in 2018 compared to 2017. Rising per capita income of urban and rural residents also drove domestic consumer spending during the year, helping to sustain a stable industrial manufacturing base thus boosting the country’s demand for energy, including electricity, petroleum and natural gas. In the medium to long term, the Chinese government advocates the use of natural gas to reduce air pollution and improve smoggy atmospheric conditions. To this end, a natural gas utilisation policy has been formulated to strengthen preventative measures to combat air pollution and speed up the use of natural gas to replace coal (“coal-to-gas”) across the country so as to minimise buildup of smog. Using piped natural gas instead of bottled petroleum gas is also being encouraged nationwide, thus enhancing sales of the former, whilst greater use of household heating in the Yangtze River Basin is raising residential gas sales there. The government is also promoting distributed energy systems by advocating partial replacement of coal-fired power with natural gas. This favourable momentum will continue to benefit the Group’s city-gas and natural gas businesses in the future.

As natural gas is a major clean energy being promoted on the mainland, long-term and steady growth in market demand is anticipated. In view of this, the

country is striving to maintain an ample supply of natural gas. With a gradual increase in imported piped natural gas from Central Asia and Myanmar, together with a scheduled supply of piped natural gas from Russia and a rise in the sources of imported liquefied natural gas (“LNG”), supply of natural gas will gradually become sufficient, which will benefit market development. In addition, a number of mainland provinces and cities are laying plans to develop gas storage facilities to boost natural gas storage capacity over winter alongside the development of LNG receiving stations. All these projects will help maintain a stable supply of natural gas, helping the Group’s mainland city-gas businesses to continue to thrive in the future.

In line with the Chinese government’s policy of advocating faster development of gas storage capacity, the Group is actively enhancing gas storage capacity on the mainland. Construction of the Group’s natural gas storage facility in underground salt caverns in Jintan district, Changzhou city, Jiangsu province, is progressing in phases. This project is the first of its kind built by a city-gas enterprise on the mainland. Phase one involves the construction of 10 wells, with storage capacity of approximately 460 million standard cubic metres; the first three wells were commissioned at the end of October 2018. Phase two, wholly-owned by the Group, involves the construction

of 12 wells with storage capacity of 560 million standard cubic metres. Upon completion, total storage capacity of the whole facility will be over 1 billion standard cubic metres, helping the Group supplement and regulate gas supply during the peak winter period for a number of its city-gas projects in eastern China. In the longer term, there are also plans to supply gas from this facility to the Group’s city-gas projects in other regions through interconnected upstream pipeline networks, facilitating the Group’s business development in downstream city-gas markets.

The Group has been in the mainland water market, under the brand name “Hua Yan Water”, for over 13 years and currently invests in, and operates, seven water projects. These include water supply joint venture projects in Wujiang district, Suzhou city, Jiangsu province and in Wuhu city, Anhui province; wholly-owned water supply projects in Zhengpugang Xin Qu, Maanshan city and in Jiangbei Xin Qu, Wuhu city, both in Anhui province; an integrated water supply and wastewater treatment joint venture project, together with an integrated wastewater treatment joint venture project for a special industry, both in Suzhou Industrial Park, Suzhou city, Jiangsu province; and a new water services joint venture project in Foshan city, Guangdong province added in the fourth quarter of 2018 through investment in Foshan Water Environmental Protection Co., Ltd. The major businesses of

this company encompass tap water supply, wastewater treatment and municipal engineering. This is the Group’s first water services project located in the Guangdong-Hong Kong-Macao Greater Bay Area. In tandem with the country’s promotion of the development of the Greater Bay Area, investment in this project is expected to provide opportunities for the Group to develop water services and environmental protection businesses within the region. In addition, given food waste processing and utilisation is also a sizable environmentally-friendly industry, the Group has constructed a plant in Suzhou Industrial Park to handle 500 tonnes daily of food waste, green waste and landfill leachate for conversion into natural gas, oil products, solid fuel and fertilizers under the “Hua Yan Water” brand; trial production formally commenced in mid-February 2019 and is the Group’s first project converting waste into valuable products. Projects of this kind will gradually be extended to other affluent mainland regions.

Operation and management of businesses encompassing city-gas, midstream natural gas, city-water and environmental waste processing and utilisation projects create ever-greater synergy and mutual advantages. Furthermore, these businesses generate stable incomes, provide good environmental benefits and exhibit high growth potential. The Group will therefore keep on looking for opportunities to invest in high-quality utility projects on the mainland.

Emerging Environmentally-Friendly Energy Businesses

ECO's major businesses in Hong Kong – an aviation fuel facility, dedicated liquefied petroleum gas (“LPG”) vehicular refilling stations and landfill gas utilisation projects – are all operating well, contributing to ECO's steady profit growth. With a total turnover of approximately 6.76 million tonnes of aviation fuel in 2018, ECO's aviation fuel facility provided a safe and reliable fuel supply to Hong Kong International Airport. ECO's five dedicated LPG vehicular refilling stations also operated smoothly in 2018, providing a quality and reliable fuel supply to the territory's taxi and minibus sectors. ECO's landfill gas utilisation projects are generating noticeable environmental benefits. In addition to the facility in the North East New Territories, which has been operating for several years, a second landfill gas utilisation project in the South East New Territories has now been in operation for one year and is further helping to raise the proportion of landfill gas used by the Group, thus increasing its contribution to energy conservation and emission reduction in Hong Kong.

With the mainland's growing concern for greater environmental protection, “coal-to-gas” conversion is still prevailing thus generating a significant demand for LNG as a gas supplement during winter. In relation to this, ECO's coalbed methane liquefaction facility, located in

Jincheng city, Shanxi province, is operating smoothly. However, due to tight upstream gas sources in 2018, output from the project decreased during the year compared to 2017.

Conversion of biomass into clean energy and chemical products is one of ECO's major business strategies, which is also in line with the policy direction of mainland China. To this end, ECO has successfully put into trial operation for one year, using its self-developed technology, an integrated processing project located in Zhangjiagang city, Jiangsu province, to process inedible bio-grease feedstock into hydro-treated vegetable oil (HVO). A total of approximately 7,000 tonnes of HVO, which has gained “International Sustainability and Carbon Certification” (ISCC), was produced and exported to European markets last year. On this basis, ECO has commenced phase two of this project to enhance production capacity to 180,000 tonnes per annum. HVO, as an advanced biofuel, can be added to diesel directly in order to reduce emissions, thus contributing to the mitigation of climate change.

Mainland China is a sizeable agricultural production country generating a large quantity of agricultural waste every year. Apart from using a small portion of this in fields or for power generation, there are currently no effective measures to make good use of the rest of this waste. ECO has commenced construction of a pilot project in Tangshan city, Hebei province, to apply self-

developed hydrolysis technology to break down agricultural straw into hemicellulose, cellulose and lignin to yield furfural and paper pulp, both used for chemical feedstock and basic materials with noticeable economic and environmental benefits. This pilot project is expected to be commissioned in late 2019 and, if successful, will drive ECO to cultivate a broad green and low-carbon eco-system business.

The operating environment of ECO's clean coal chemical project in Ordos city, Inner Mongolia Autonomous Region, remained positive during 2018. Additionally, trial production of a facility to convert a portion of the project's syngas into 120,000 tonnes of ethylene glycol annually was started in 2018, and has successfully produced high-quality ethylene glycol, representing a key step to further expanding ECO's syngas upgrading businesses.

ECO's scientific research, focusing on the extraction of high-quality carbon materials from the pitch portion of high-temperature coal tar oil, has achieved promising results, successfully producing high-quality activated carbon and hydrogenated pitch. High-quality activated carbon can be used for making super capacitors, whereas hydrogenated pitch can be used as a raw material for carbon fibre or as an anode material for batteries. Given the prevailing trend for promoting new energy electric vehicles and rail transport electrification in mainland China, prospects for

these new carbon materials are promising. ECO's first pilot project of this kind in Ordos city, Inner Mongolia Autonomous Region, is now at the preparatory stage; construction work is expected to commence within 2019.

ECO continues to march along its well-defined new energy business development strategy by strengthening its capabilities in developing innovative technologies, and, with that, building up its key businesses relating to low-carbon and clean-coal chemicals, efficient conversion and utilisation of agricultural straw, preparation of high-quality carbon materials, hydrogenation and upgrading of bio-grease, and utilisation of unconventional gas resources, etc. In so doing, ECO is gradually migrating from its original business strategy focusing on fuel substitutes to one encompassing higher value-added chemical and advanced materials. Related key technologies have already achieved a number of breakthroughs and some have already been granted the intellectual property rights. As these projects begin to show significant economic and environmental benefits, they are expected to become the basis of ECO's core business in the future.

Telecommunications Businesses

The Group's development of telecommunications businesses in Hong Kong and mainland China, including provision of connectivity, data centres and cloud computing

services for international and local internet service providers, telecommunications operators as well as large corporations, through its wholly-owned subsidiary Towngas Telecommunications Company Limited and the latter's subsidiaries, is progressing steadily. The company is strengthening its foundations to cater for data transmission, processing and storage needs as well as swifter market development in the future.

Towngas China Company Limited (Stock Code: 1083.HK)

Towngas China, a subsidiary of the Group, maintained stable business growth in 2018. Profit after taxation attributable to its shareholders for the year amounted to HK\$1,224 million, a decrease of approximately 10 per cent compared to 2017. Exclusive of the one-off profit of HK\$209 million for Towngas China resulting from the listing of Foshan Gas Group Co., Ltd. in 2017, profit after taxation attributable to shareholders increased by approximately 6 per cent compared to 2017. As at the end of December 2018, the Group held approximately 1,895 million shares in Towngas China, representing approximately 67.45 per cent of Towngas China's total issued shares.

In respect of project development, 11 new projects were added to Towngas China's portfolio in 2018, including a city-gas project in Liujiang district, Liuzhou city,

Guangxi Zhuang Autonomous Region; a midstream natural gas pipeline network and city gate station project in Chiping county, Liaocheng city, Shandong province; Towngas Natural Gas Sales Co., Ltd.; and eight distributed energy projects located in Jiawang district, Xuzhou city, Jiangsu province; in Xuzhou Biomedical Industrial Park, Jiangsu province; in Jimo Chuangzhi new district, Qingdao city, Shandong province; in Yangxin Economic and Technological Development Zone and Boxing Economic Development Zone, both in Binzhou city, Shandong province; in Changchun city, Jilin province; in Chengnan Economic Development Zone, Tangshan city, Hebei province; and in Guilin city, Guangxi Zhuang Autonomous Region respectively.

Besides developing existing markets and proactively investing in commercial and industrial distributed energy and "coal-to-gas" conversion projects in tandem with the country's policy of advocating environmental protection, Towngas China will also continue to research and develop high-quality gas accessory products and explore extended businesses so as to provide customers with one-stop household products and services for purchase. Towngas China will also continue to seize opportunities to explore more environmental protection projects, striving for the best interest and returns for its investors and shareholders.

Financing Programmes

In order to tap funding in a timely and flexible manner, the Group established a medium term note programme in 2009 under HKCG (Finance) Limited, a wholly-owned subsidiary of the Group. Medium term notes totalling HK\$1,027 million, with a maturity ranging from 3 to 30 years, were issued during 2018. In line with the Group's long-term business investments, as at 31st December 2018, the amount of medium term notes issued had reached HK\$14.4 billion with tenors ranging from 3 to 40 years, mainly at fixed interest rate with an average of 3.5 per cent per annum and with an average tenor of 15 years.

In January 2014, the Group issued its first perpetual subordinated guaranteed capital securities (the "Perpetual Securities"), amounting to US\$300 million, through Towngas (Finance) Limited, a wholly-owned subsidiary of the Group. These Perpetual Securities were redeemed in January 2019. Since Perpetual Securities have no fixed maturity date, they are accounted for as equity instead of borrowings in financial statements. This helps to strengthen the Group to maintain its high investment grade credit ratings. Therefore, the Group issued new Perpetual Securities again in February 2019 and the proceeds are mainly used to refinance the redeemed US\$300 million Perpetual Securities. The newly issued US\$300 million Perpetual

Securities will keep a coupon interest rate of 4.75 per cent per annum for the first five years. The Perpetual Securities are redeemable, at the option of the Group, in February 2024 or thereafter every six months on the coupon payment date. This issuance of the Perpetual Securities, rated A3 and A- by international rating agencies Moody's Investors Service and Standard and Poor's Rating Services respectively, received an overwhelming response from investors and were more than 14 times oversubscribed. The Perpetual Securities, guaranteed by the Company, were listed on The Stock Exchange of Hong Kong Limited on 13th February 2019 (stock code: 5749.HK).

Employees and Productivity

As at the end of 2018, the number of employees engaged in the town gas business in Hong Kong was 2,052 (2017 year end: 2,022), the number of customers was 1,908,511, and each employee served the equivalent of 930 customers, a similar level to 2017. Inclusive of employees engaged in local businesses such as telecommunications, LPG vehicular refilling stations and engineering contractual works, the total number of the Group's employees engaged in businesses in Hong Kong was 2,418 as at the end of 2018 compared to 2,388 as at the end of 2017. Related manpower costs amounted to HK\$1,139 million for 2018. In 2018, there was an approximately 4 per cent

average increase in remuneration over 2017. The Group will continue to offer employees rewarding careers based on their capabilities and performance and arrange a variety of training programmes in order to constantly enhance the quality of the Group's customer services.

Exclusive of businesses in Hong Kong, the total number of the Group's employees in mainland China and other places outside Hong Kong was approximately 49,700 as at the end of 2018, an increase of approximately 2,700 compared to 2017.

On behalf of the Board of Directors, I would like to thank all our employees for their dedication and hard work in creating value for shareholders and customers.

Bonus Issue of Shares

The Directors propose to make a bonus issue of one new share for every ten existing shares held by shareholders whose names are on the Register of Members of the Company as at 5th June 2019. The necessary resolution will be proposed at the forthcoming Annual General Meeting on 28th May 2019, and if passed, share certificates will be posted on 13th June 2019.

Final Dividend

The Directors are pleased to recommend a final dividend of HK23 cents per share payable to shareholders whose names are on the Register of Members of the Company as at

5th June 2019. Including the interim dividend of HK12 cents per share paid on 2nd October 2018, the total dividend payout for the whole year shall be HK35 cents per share.

Barring unforeseen circumstances, the forecast dividends per share for 2019 after bonus share issue shall not be less than the interim and final dividends for 2018.

Business Outlook for 2019

The Company predicts steady growth in its number of customers in Hong Kong during 2019. Favourable employment conditions and thriving inbound tourism are helping to stimulate domestic demand and consumer spending. The Group's gas business in Hong Kong is also benefiting from the efforts of the Government of the Hong Kong Special Administrative Region to increase land and housing supply which should help maintain stable and good growth in the number of gas customers in the next few years. Additionally, town gas as an energy resource, combining both environmental and economic advantages, is creating a competitive edge fostering development of the Company's commercial and industrial energy markets. Nevertheless, the external environment is complex and fast-changing. Coupled with increasing local manpower costs and operating expenses leading to rising costs for businesses in Hong Kong generally, the local business environment is full of

challenges. The Company will, however, continue to encourage smart innovation to enhance operational efficiency so as to maintain stable development of its gas business in the territory.

Given the international political environment and the world economy face a number of uncertainties, this will continue to impact economic development on the mainland, particularly that associated with export manufacturing industries. Under these circumstances, the Group's mainland businesses inevitably also face challenges with respect to growth in the near term. Despite this, as domestic consumer spending is making an ever-increasing contribution to the mainland's economic growth, aided by the Chinese government continually striving to expand domestic demand in order to offset some of the impact resulting from the uncertain prospects of export manufacturing industries. Additionally, export of mainland products to countries and regions along the "Belt and Road Initiative" routes shows growth potential and will help to facilitate the development of manufacturing industries. In the long term, the Chinese government's move to improve smoggy atmospheric conditions by tightening supervision and administration of related measures will be progressive. On 1st January 2018, the Implementing Regulations for the Environmental Protection Tax Law became effective alongside the Environmental Protection Tax

Law, aiming to further promote corporate initiatives to enhance environmental protection levels by charging taxes in accordance with the quantity of pollutants discharged; this is helping the development of natural gas markets. The Chinese government is also increasing its efforts to reduce carbon emissions by encouraging the use of clean energy, creating good opportunities for natural gas to replace coal in industrial production, as well as in boilers, power generation, distributed energy, household heating, etc. In addition, increasing upstream gas supplies, expanding and improving pipeline networks and rapid urbanisation, leading to a continuous rise in demand for utility facilities and energy, are all favourable to the downstream gas market and the healthy development of the natural gas business sector in general. As a result, the Group's gas sales volumes are expected to show promising growth in the future.

In respect of emerging environmentally-friendly energy businesses, following the Chinese government's move towards greater energy diversification, environmental protection and recycling of materials, the Group is continuing to develop and apply new technologies for conserving energy and reducing pollutant emissions. There is also a growing trend for greater use of low-sulfur, high-quality oil, electricity and natural gas as fuels for vehicles and vessels to reduce atmospheric pollution.

ECO is additionally moving towards production of high-quality chemical products which are less sensitive to international oil prices, taking this as a guide for future business development; some associated projects will be commissioned within this year. As ECO's in-house research and development of a number of technologies is gradually achieving results, which are being put into commercial production, emerging environmentally-friendly energy businesses will ignite a new light for the Group, illuminating the way for long-term development and medium-to-long term business growth strategies.

With the Group's solid foundation in Hong Kong and its diverse business sectors spread across extensive areas on the mainland, together with its established operational base, successful technical experience, corporate brand names and sales channels built there over 20 years alongside society's growing concern over air quality, it is anticipated that there will be ever-rising demand for clean energy and the Group's mainland businesses will have further prosperous development. According to mainland China's Thirteenth Five-Year Plan, the share of natural gas in the country's total energy mix is set to increase from approximately 8 per cent currently to 10 per cent by year 2020, thus creating huge market potential for clean energy. In addition, given that the number of piped-gas customers in Hong Kong and mainland China is rising, the Group foresees

that this sizeable customer base will create a promising platform for expansion of various new businesses. Furthermore, in line with the country's development plan for the Guangdong-Hong Kong-Macao Greater Bay Area, the Group is seizing investment opportunities to explore environmental protection projects in the Pearl River Delta region.

Despite a number of projected global economic uncertainties in 2019, the continuing optimisation of mainland China's economic structure, which the government has been implementing for a number of years, together with a rising middle-class population, will also help maintain stable economic growth and sustain keen demand for clean energy. The Group will continue to formulate, and is gradually implementing, plans in accordance with the country's energy and environmental protection policies. Overall, with society's growing aspiration for more environmental protection, demand for natural gas, as well as environmentally-friendly and renewable energy, will increase. Furthermore, the Group is actively promoting technological research and new product development, and related work is being effectively and gradually implemented, thus continuously injecting new impetus to foster business growth. In addition, with sizeable customer base resources built up after years of operating urban utilities, the Group anticipates an ever broader and brighter development for its various businesses in the future.

Consideration to Step Down as Chairman

I, being advanced in age, am considering to step down from the position of Chairman of the Company after the conclusion of the forthcoming annual general meeting and to propose to the Board to appoint Dr. Lee Ka-kit and Mr. Lee Ka-shing as Joint Chairmen. Details of my decision and future arrangements will be announced on the date of the annual general meeting, 28th May 2019.

I would like to express my heartfelt gratitude to our shareholders for their confidence and unfailing support to me as Chairman over the past decades.

Lee Shau-kee

Chairman

Hong Kong, 20th March 2019

Board of Directors



FROM LEFT TO RIGHT

Alfred Chan Wing-kin

Lee Ka-shing

Moses Cheng Mo-chi

David Li Kwok-po

Lee Shau-kee
Chairman

Poon Chung-kwong

Lee Ka-kit

Colin Lam Ko-yin

Peter Wong Wai-yee

BIOGRAPHICAL DETAILS OF DIRECTORS

Dr. the Hon. Lee Shau-kee

G.B.M., D.B.A. (Hon.), D.S.Sc. (Hon.), LL.D. (Hon.),
Chairman & Non-executive Director

Aged 90. Dr. Lee was appointed to the Board of Directors of the Company in 1978 and subsequently appointed Chairman in 1983. He has been engaged in property development in Hong Kong for more than 60 years. Dr. Lee is the Chairman and Managing Director of Henderson Land Development Company Limited (“Henderson Land Development”) and an Executive Director of Henderson Investment Limited. Dr. Lee is also a Vice Chairman of Sun Hung Kai Properties Limited as well as a Non-executive Director of Hong Kong Ferry (Holdings) Company Limited and Miramar Hotel and Investment Company, Limited. All the above companies are listed public companies. Dr. Lee is also a Director of Henderson Development Limited (“Henderson Development”), Hopkins (Cayman) Limited (“Hopkins”), Rimmer (Cayman) Limited (“Rimmer”), Riddick (Cayman) Limited (“Riddick”), Timpani Investments Limited (“Timpani Investments”), Disralei Investment Limited (“Disralei Investment”), Medley Investment Limited (“Medley Investment”) and Macrostar Investment Limited (“Macrostar Investment”). Henderson Land Development, Henderson Development, Hopkins, Rimmer, Riddick, Timpani Investments, Disralei Investment, Medley Investment and Macrostar Investment have discloseable interests in the Company under the provisions of the Securities and

Futures Ordinance (please refer to the notes on “Substantial Shareholders and Others” on pages 69 and 70 of this Annual Report for details). Dr. Lee was awarded the Grand Bauhinia Medal by the Government of the Hong Kong Special Administrative Region in 2007. Dr. Lee is the father of Dr. Lee Ka-kit and Mr. Lee Ka-shing, Non-executive Directors of the Company.

Dr. Colin Lam Ko-yin

S.B.S., F.C.I.L.T., F.H.K.I.o.D., D.B. (Hon.),
Non-executive Director

Aged 67. Dr. Lam was appointed to the Board of Directors of the Company in 1983. He has more than 45 years’ experience in banking and property development. He is the Deputy Chairman of The University of Hong Kong Foundation for Educational Development and Research and a Director of Fudan University Education Development Foundation. Dr. Lam was awarded the Silver Bauhinia Star by the Government of the Hong Kong Special Administrative Region in 2017. He was also awarded an Honorary University Fellowship by The University of Hong Kong in 2008, and was conferred a degree of Doctor of Business (Honoris Causa) by Macquarie University in 2015. He is a Fellow of The Chartered Institute of Logistics and Transport in Hong Kong and a Fellow of The Hong Kong Institute of Directors. Dr. Lam is a Vice Chairman of Henderson Land Development Company Limited (“Henderson Land Development”) and Henderson Investment Limited, the Chairman of Hong Kong Ferry

(Holdings) Company Limited, and an Executive Director of Miramar Hotel and Investment Company, Limited, all of which are listed public companies. Dr. Lam is a Director of Henderson Development Limited (“Henderson Development”), Hopkins (Cayman) Limited (“Hopkins”), Rimmer (Cayman) Limited (“Rimmer”), Riddick (Cayman) Limited (“Riddick”), Disralei Investment Limited (“Disralei Investment”), Medley Investment Limited (“Medley Investment”) and Macrostar Investment Limited (“Macrostar Investment”). Henderson Land Development, Henderson Development, Hopkins, Rimmer, Riddick, Disralei Investment, Medley Investment and Macrostar Investment have discloseable interests in the Company under the provisions of the Securities and Futures Ordinance (please refer to the notes on “Substantial Shareholders and Others” on pages 69 and 70 of this Annual Report for details).

Dr. the Hon. Sir David Li Kwok-po

GBM, GBS, OBE, JP, MA Cantab. (Economics & Law), Hon. LLD (Cantab), Hon. DSc. (Imperial), Hon. LLD (Warwick), Hon. DBA (Edinburgh Napier), Hon. D.Hum.Litt. (Trinity, USA), Hon. LLD (Hong Kong), Hon. DSocSc (Lingnan), Hon. DLitt (Macquarie), Hon. DSocSc (CUHK), FCA, FCPA, FCPA (Aust.), FCIB, FHKIB, FBCS, CITP, Officier de l’Ordre de la Couronne, Grand Officer of the Order of the Star of Italian Solidarity, The Order of the Rising Sun, Gold Rays with Neck Ribbon, Commandeur dans l’Ordre National de la Légion d’Honneur,
Independent Non-executive Director

Aged 80. Sir David was appointed to the Board of Directors of the Company in 1984. Sir David is the Chairman and Chief Executive of The Bank of East Asia, Limited. He is an Independent Non-executive Director

of Guangdong Investment Limited, The Hongkong and Shanghai Hotels, Limited, San Miguel Brewery Hong Kong Limited and Vitasoy International Holdings Limited. All the above companies are listed public companies. He is also a Director of Hong Kong Interbank Clearing Limited. He was previously an Independent Non-executive Director of SCMP Group Limited (now known as Great Wall Pan Asia Holdings Limited) and PCCW Limited. Sir David is a Member of the Council of the Treasury Markets Association. He is Founding Chairman of The Friends of Cambridge University in Hong Kong Limited, Chairman of the Advisory Board of The Salvation Army, Hong Kong and Macau Command and Chairman of the Executive Committee of St. James' Settlement. He was a Member of the Executive Council of Hong Kong from 2005 to 2008 and the Legislative Council of Hong Kong from 1985 to 2012.

Dr. Lee Ka-kit

G.B.S., J.P., D.B.A. (Hon.),

Non-executive Director

Aged 55. Dr. Lee was appointed to the Board of Directors of the Company in 1990. He was educated in the United Kingdom. He is a Vice Chairman of Henderson Land Development Company Limited ("Henderson Land Development") and Henderson Investment Limited. Dr. Lee is also a Non-executive Director of The Bank of East Asia, Limited and an Independent Non-executive Director of Xiaomi Corporation. All the above companies

are listed public companies. He is also a Vice Chairman of Henderson Development Limited ("Henderson Development") and a Director of Hopkins (Cayman) Limited ("Hopkins"), Rimmer (Cayman) Limited ("Rimmer") and Riddick (Cayman) Limited ("Riddick"). Henderson Land Development, Henderson Development, Hopkins, Rimmer and Riddick have discloseable interests in the Company under the provisions of the Securities and Futures Ordinance (please refer to the notes on "Substantial Shareholders and Others" on pages 69 and 70 of this Annual Report for details).

Dr. Lee is a Member of the Standing Committee of the 13th National Committee of the Chinese People's Political Consultative Conference and a Member as well as the Chairman of the Board of Directors of One Country Two Systems Research Institute. He was appointed as a Justice of the Peace by the Government of the Hong Kong Special Administrative Region (the "HKSAR") in 2009, and was awarded the Gold Bauhinia Star by the Government of the HKSAR in 2015. Dr. Lee was awarded an Honorary University Fellowship by The University of Hong Kong in 2009, and was also awarded an Honorary Degree of Doctor of Business Administration by Edinburgh Napier University in 2014. He is the son of Dr. Lee Shau-kee, the Chairman of the Company and the brother of Mr. Lee Ka-shing, a Non-executive Director of the Company.

Mr. Lee Ka-shing

J.P.,

Non-executive Director

Aged 47. Mr. Lee was appointed to the Board of Directors of the Company in 1999. He was educated in Canada. He is a Vice Chairman of Henderson Land Development Company Limited ("Henderson Land Development"), the Chairman and Managing Director of Henderson Investment Limited and the Chairman and Chief Executive Officer of Miramar Hotel and Investment Company, Limited, all of which are listed public companies. Mr. Lee is also a Vice Chairman of Henderson Development Limited ("Henderson Development") and a Director of Hopkins (Cayman) Limited ("Hopkins"), Rimmer (Cayman) Limited ("Rimmer"), Riddick (Cayman) Limited ("Riddick"), Disralei Investment Limited ("Disralei Investment"), Medley Investment Limited ("Medley Investment"), Faxson Investment Limited ("Faxson Investment"), Chelco Investment Limited ("Chelco Investment") and Macrostar Investment Limited ("Macrostar Investment"). Henderson Land Development, Henderson Development, Hopkins, Rimmer, Riddick, Disralei Investment, Medley Investment, Faxson Investment, Chelco Investment and Macrostar Investment have discloseable interests in the Company under the provisions of the Securities and Futures Ordinance (please refer to the notes on "Substantial

Shareholders and Others” on pages 69 and 70 of this Annual Report for details). Mr. Lee was appointed as a Justice of the Peace by the Government of the Hong Kong Special Administrative Region in 2017. He is a Member of The Court of The Hong Kong Polytechnic University. He is also a Committee Member of the 13th Beijing Committee of the Chinese People’s Political Consultative Conference. Mr. Lee is the son of Dr. Lee Shau-kee, the Chairman of the Company and the brother of Dr. Lee Ka-kit, a Non-executive Director of the Company.

Prof. Poon Chung-kwong

G.B.S., J.P., Ph.D., D.Sc.,

Independent Non-executive Director

Aged 79. Prof. Poon was appointed to the Board of Directors of the Company in 2009. Prof. Poon is currently the Chairman of Virya Foundation Limited (a registered non-profit charitable organisation). Prof. Poon is an Emeritus Professor and the President Emeritus of The Hong Kong Polytechnic University. He had devoted 40 years of his life to advancing university education in Hong Kong before he retired in January 2009 from his 18-year presidency at The Hong Kong Polytechnic University. Prof. Poon is a Non-executive Director of Lee & Man Paper Manufacturing Limited and an Independent Non-executive Director of Henderson Land Development Company Limited (“Henderson Land Development”) and Chevalier International Holdings Limited. He was previously an Independent Non-executive Director of Hopewell Highway Infrastructure

Limited. All the above companies are listed public companies. Henderson Land Development has discloseable interests in the Company under the provisions of the Securities and Futures Ordinance (please refer to the notes on “Substantial Shareholders and Others” on pages 69 and 70 of this Annual Report for details). Prof. Poon was appointed as a Justice of the Peace in 1989 and received the OBE award in 1991, the Gold Bauhinia Star award in 2002 and also the “Leader of the Year Awards 2008 (Education)”. In addition, he was appointed as a member of the Legislative Council (1985 – 1991) and a member of the National Committee of the Chinese People’s Political Consultative Conference (1998 – 2013). Prof. Poon obtained a Bachelor of Science (Honours) Degree from The University of Hong Kong, a Doctor of Philosophy Degree and a Higher Doctor of Science Degree from the University of London. He was a Postdoctoral Fellow at the California Institute of Technology, University of Southern California and University of Toronto. He also held the Honorary Degree of Doctor of Humanities from The Hong Kong Polytechnic University in 2009.

Dr. Moses Cheng Mo-chi

G.B.M., G.B.S., O.B.E., J.P.,

Independent Non-executive Director

Aged 69. Dr. Cheng was appointed to the Board of Directors of the Company in January 2019. Dr. Cheng is a practising solicitor and the consultant of Messrs. P.C. Woo & Co. after serving as its senior

partner from 1994 to 2015. Dr. Cheng was a member of the Legislative Council of Hong Kong. He is the founder chairman of the Hong Kong Institute of Directors of which he is now the Honorary President and Chairman Emeritus. Dr. Cheng is now also serving as the Chairman of the Insurance Authority. Dr. Cheng has been an independent non-executive director of Towngas China Company Limited, a subsidiary of the Company, since May 2007. He also currently holds directorships in China Mobile Limited, China Resources Beer (Holdings) Company Limited, Guangdong Investment Limited, Kader Holdings Company Limited, K. Wah International Holdings Limited, Liu Chong Hing Investment Limited and Tian An China Investments Company Limited. All the above companies are listed public companies. He was previously an independent non-executive director of ARA Asset Management Limited, a company whose shares were formerly listed on the Singapore Stock Exchange.

Mr. Alfred Chan Wing-kin

B.B.S., Hon.F.E.I., Hon.F.I.I.U.S., C.Eng., F.H.K.I.E., F.I.Mech.E., F.I.G.E.M., M.Sc. (Eng), B.Sc. (Eng),

Managing Director

Aged 68. Mr. Chan joined the Company as the General Manager – Marketing in 1992 and was appointed as the General Manager – Marketing & Customer Service in 1995. He was appointed to the Board of Directors of the Company in January 1997 and as the Managing Director in May 1997. Mr. Chan is a director of major

local and overseas subsidiary companies of the Company. He is also the Chairman and President of Hong Kong & China Gas Investment Limited, an investment holding company in mainland China and chairman, vice chairman or a director of a number of the project companies in mainland China. Mr. Chan is the Chairman of Towngas China Company Limited, the Vice Chairman of Shenzhen Gas Corporation Ltd. and a Non-executive Director of the tenth session of the board of directors of Shanghai Dazhong Public Utilities (Group) Co., Ltd., all of which are listed public companies. He is an Honorary President of The Hong Kong Management Association and a Vice Chairman of China Gas Association. Mr. Chan is a Member of the Standing Committee on Judicial Salaries and Conditions of Service of the Government of the Hong Kong Special Administrative Region. In addition, he is a Member of the Board of Stewards of The Education University of Hong Kong Foundation. Mr. Chan received the Executive Award under the DHL/SCMP Hong Kong Business Awards 2005, the Director of the Year Awards – Listed Companies (SEHK – Hang Seng Index Constituents) Executive Directors from The Hong Kong Institute of Directors in 2006, the Leadership Award in Gas Industry Award 2015 from the Institution of Gas Engineers & Managers and the Energy and Utilities Alliance of the United Kingdom, “The CEO of the Year 2017” Award from China Newsweek in 2017 and was named

consecutively as one of “The 100 Best-Performing CEOs in the World” by Harvard Business Review from 2015 to 2018. He was awarded an Honorary Fellowship by The Hong Kong Institute of Education (now known as The Education University of Hong Kong) in 2016. Mr. Chan, a Chartered Engineer, is also Honorary Fellow of the Energy Institute of the United Kingdom, Fellow of The Hong Kong Institution of Engineers; Fellow of The Institution of Mechanical Engineers, Fellow of the Institution of Gas Engineers & Managers of the United Kingdom and Honorary Fellow of International Institute of Utility Specialists.

Mr. Peter Wong Wai-ye

C.P.A. (CANADA), C.M.A., C.P.A. (HK), A.C.I.S., A.C.S., F.I.G.E.M., F.H.K.I.o.D., M.B.A.,

Executive Director and Chief Operating Officer – Utilities Business

Aged 67. Mr. Wong joined the Group in 1997, initially as its Financial Controller. Since 2002, he has been deeply involved in the development of the Group’s mainland utilities business, operating from its headquarters in Shenzhen, China. Mr. Wong was appointed to the Board of Directors of the Company in February 2013. Mr. Wong is currently the Executive Director and Chief Operating Officer of the Utilities Business and also holds directorships in various subsidiaries of the Group. He is also an Executive Director and the Chief Executive Officer of Towngas China Company Limited, the Vice Chairman of Foshan Gas Group Co., Ltd. and a director of Shenzhen Gas Corporation Ltd., all of which are

listed public companies. He is a Member of the Mainland Business Advisory Committee of the Hong Kong Trade Development Council. Mr. Wong was named consecutively as one of “The Best CEO of Chinese Listed Companies” by Forbes in 2012 and 2013. He is a chartered professional accountant of Canada, a certified public accountant of Hong Kong and a chartered company secretary both in Hong Kong and the United Kingdom. Mr. Wong is a Fellow of the Institution of Gas Engineers & Managers of the United Kingdom. He completed the Advanced Management Program from Harvard Business School in the United States. Mr. Wong was formerly a director of the Certified Management Accountants Society of British Columbia, Canada and the president of its Hong Kong branch. He is a member of the Advisory Board of the Department of Accounting of Hong Kong Shue Yan University and a member of the Advisory Committee of the College of Professional and Continuing Education, The Hong Kong Polytechnic University. Mr. Wong has over 42 years of experience in corporate finance, management and international working experience.

Executive Committee



FROM LEFT TO RIGHT

Philip Siu Kam-shing

*Chief Operating Officer –
New Energy Business*

Peter Wong Lam-sang

*Head of Commercial –
Hong Kong Utilities*

Peter Wong Wai-yee

*Executive Director and
Chief Operating Officer –
Utilities Business*

Alfred Chan Wing-kin

Managing Director

John Ho Hon-ming

*Chief Financial Officer and
Company Secretary*

Fan Kit-yee

*Head of Corporate Human
Resources*

Simon Ngo Siu-hing

*Head of Engineering –
Hong Kong Utilities*





MAINLAND
UTILITY
BUSINESSES

Caring for Future Generations

We invest in the gas infrastructure that enables our customers in mainland China to enjoy a reliable supply of clean energy in their homes and businesses. With the establishment of our wholly-owned subsidiary, Hua Yan Water, we are not only engaged in the provision of clean water resources including water supply and wastewater treatment services, but also expanding into new ventures such as converting food waste into energy that will power communities for our future generations.

MAINLAND UTILITY BUSINESSES

Clean Energy for Mainland China

In 2018, we operated 131 city-gas projects in 23 provinces, autonomous regions and municipalities across the country. The number of customers served during the year exceeded 27 million, or 9 per cent more than the year before.

Our business performance during the year was satisfactory. The growth in city-gas sales was particularly strong, with an increase of 18 per cent over the previous year, to reach a total volume of gas sales of about 23,000 million cubic metres.

The increase in gas sales volume can be mainly attributed to the Chinese government's natural gas utilisation policy, which is accelerating the pace of coal-to-gas conversion. Other key factors influencing the rise in gas sales included cooler weather during the 2017-2018 winter and changing consumer habits, especially with regard to the fast-growing demand for space heating in the regions north of the Yangtze River.

Since 1994, we have been providing clean-burning gas and related products and services that help to create greater value and a greener future for our customers throughout mainland China.



Official opening of our underground salt-cavern gas storage facility in Jintan, Changzhou, Jiangsu province, which began operating in October 2018.

The industrial sectors performed particularly well as many businesses have been converting their boilers and furnaces from coal to natural gas. In the commercial sector, we were able to acquire more than 18,200 new customers during the year, mainly in the restaurant sector, as we stepped up our efforts to promote the safety of piped natural gas versus bottled liquefied petroleum gas.

We see room for further growth in this market as natural gas is still a relatively new fuel in mainland China, where it accounts for about 8 per cent of the total energy consumption currently. The consumption of natural gas should continue to increase to 360 billion cubic metres by 2020 for the whole of mainland China.

By 2030, it is expected that natural gas will make up 15 per cent of all the energy consumed in the country.

In addition, there is tremendous potential for bringing new projects on stream in the Greater Bay Area, where we currently have more than 20 joint venture projects. The government-backed development plan for the Greater Bay Area, which encompasses Hong Kong and Macao along with nine cities in southern Guangdong province, presents numerous investment opportunities.

Warmth



Distributed energy systems (DES) remained the focus of our business in the city-gas market in 2018. Towngas Energy Investment (Shenzhen) Company, a wholly-owned subsidiary of the Group specialising in distributed energy projects, has recorded strong growth since its establishment in 2017.

Combined heat and power systems have become widely accepted among commercial and industrial customers, particularly in industrial parks that require a centralised energy supply. Unlike conventional systems that supply gas to individual boilers and production lines, DES makes use of high efficiency natural gas power generators and large boilers, while simultaneously creating hot water, steam or chilled water through waste heat utilisation.

With a total of over 20 DES projects underway, we have become widely accepted in the market. Our reputation as a leader in this technology was further cemented in December 2018, with the signing of a strategic cooperation agreement with Tsinghua University to establish a Regional Comprehensive Energy Planning Technology Joint Research Centre.

We see a promising future for this business, as DES can guarantee energy efficiency rates of more than 70 per cent and its use has received the support of the Chinese government as part of its strategy to reduce carbon emissions. To capitalise on the opportunities presented by DES, we will explore new projects and continue investing in this sector. Our target is to achieve 3.5 billion cubic metres in natural gas sales through DES by the year 2022.

Securing a Reliable Gas Supply

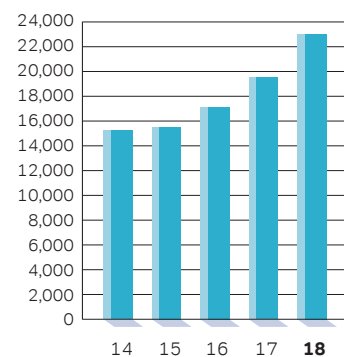
The midstream facilities in which we invest, including gas infrastructure such as long-haul pipelines and gas storage facilities, enable us to secure a reliable supply of natural gas for our customers.

One of the key projects in our midstream business is our underground salt-cavern gas storage facility in Jintan, Changzhou, Jiangsu province. Starting with an initial storage capacity of 460 million standard cubic metres of gas, the first phase was commissioned in October 2018 and began supplying gas in the following month. The project, which is the first underground gas storage facility in mainland China built by a city-gas enterprise, will have a total storage capacity of 1 billion standard cubic metres when it goes into full operation in 2022.

As well as substantially increasing our storage capacity, the facility will allow us to regulate gas supply and prices more effectively. It enables us to

China Joint Ventures Gas Sales

(million m³)



save gas in the summer months when demand and fuel costs are lower and provide additional gas supply during the winter peak load to our city-gas projects. In this way, the fluctuations in supply and demand are evened out, leading to a more stable supply of gas.

In the near future, we will also be able to sell the stored gas on the open market. It is expected that in mid-2019, the Chinese government will merge the gas pipeline assets of its three state-owned oil and gas companies and form a national pipeline company. This will then allow third-party access to the national grid, thus ensuring a flexible supply of gas.

This tap water plant is owned and operated by Foshan Water Environmental Protection Co., Ltd, in Foshan, Guangdong province.



At the same time, we have been expanding our liquefied natural gas (LNG) receiving terminal facilities in order to supply mainland China with the clean energy it requires to replace coal. At present, China cannot meet the demand for natural gas domestically and imports about half of its supply. That percentage will continue to increase in the years ahead.

China's supply of LNG primarily comes from Australia, Indonesia, Qatar and, as of July 2018, from Russia via the Northern Sea Route on the Arctic coast to the Rudong LNG Terminal in Jiangsu province. In the years ahead, Russia will be a key supplier of gas to China, with 3 million tonnes of LNG shipped per year and, more importantly, a piped gas supply to the northeastern region of China starting at the end of 2019.

To accommodate the growth in imported gas, we plan to invest in several other LNG terminal projects. These were under negotiation during the year, with some expected to come on stream in 2020.

Clean Water Supply and Food Waste Recycling

We have been engaged in the water supply and wastewater treatment business since 2005 through our wholly-owned subsidiary, Hong Kong & China Water Limited (Hua Yan Water). In 2018, Hua Yan Water had eight projects underway in mainland China, including water supply, domestic sewage and industrial wastewater treatment. During the review period, Hua Yan Water sold 610 million tonnes of water, an increase of 31 per cent over 2017. As of the year end, the Company served more than 2.24 million customers.

In a milestone for the Group, in 2018 we invested RMB550 million in Foshan Water Environmental Protection Co., Ltd (Foshan Water Environment Protection) to acquire 26 per cent of that company's shares. The investment is our first water services project in the Greater Bay Area and the first to open in southern China.

Our new food waste project at Suzhou Industrial Park was set up by Hua Yan Water using its experience in sewage treatment.



Foshan Water Environmental Protection currently has 15 water plants, providing up to 1.94 million tonnes of water every day to more than 800,000 households. In addition to supplying water, Foshan Water Environmental Protection is planning to expand into environmental projects.

Since governments at various levels in mainland China have put a high priority on clean water resources, we see tremendous potential for the expansion of the industry and our investments in the water business.

The Group's first food waste project, located at Suzhou Industrial Park, went into trial production in February 2019. The plant can handle 500 tonnes of food waste, green waste and landfill leachate daily for

conversion into natural gas, oil products and solid fuel that will be used in the Park. Organic fertiliser will also be produced using Swedish technology and our own expertise. We plan to extend this business to cities outside Suzhou and are exploring the potential for more food waste projects, mostly in eastern China.

Premium Products, Premium Services

In 2018, we continued to fulfil the needs of more than 27 million customers across the country by providing a selection of quality products, such as space heaters, kitchen appliances and cabinets, as well as gas-related services.

We have been offering customers safe, high-quality gas appliances under the Bauhinia brand since 2005 and, in 2015, began offering a Total Kitchen

Solution of premium kitchen equipment and cabinets under the Mia Cucina brand.

During the year, the Bauhinia name continued to gain recognition in the market, with over 771,000 Bauhinia branded appliances sold. Of these, over 30,000 were gas dryers and more than 30,000 were space heaters. In 2018, we saw a breakthrough in sales of water heaters and clothes dryers for households, which led to an increase in gas consumption per household.

Higher-end products such as household heating systems were especially popular. We have high hopes for this business in mainland China, where the market for these products is huge.

Our reliable, high-quality clothes dryers under the Bauhinia brand have been growing in popularity among mainland customers.



Gentleness



Our Mia Cucina line of high-end kitchen cabinets, stoves and other kitchen equipment has also achieved encouraging results since it was introduced in mainland China in 2017. During the year, we sold a total of over 4,100 Mia Cucina packages to property developers and individual home owners as part of our Total Kitchen Solution.

Following the success of our Mia Cucina cabinet displays in various cities last year, we plan to set up a grand showroom in early 2019 at Suzhou Industrial Park, aimed primarily at developers of building projects. We expect that this showroom, along with our ongoing marketing efforts, will help us to build the brand even further in mainland China.

To serve our customers more efficiently, we offer an e-commerce platform, Towngas Lifestyle, to bring customers a wide selection of high-quality

lifestyle services and products. This convenient online platform provides one-stop e-services and a variety of products, including festive foods, kitchenware and gas-related insurance.

Setting the Standard in Customer Service

We are justifiably proud of our customer service in mainland China and are constantly looking for new ways to raise our standards even higher.

In addition to 269 customer centres across 86 mainland cities, another key platform we have established for serving

customers is our Virtual Customer Centre (VCC). Accessible through websites, social media and mobile apps, the VCC in 2018 served over 3.5 million members, who made over 3 million gas-related service transactions on the platform, including bill payments.

Also during the year, we continued to promote Total Quality Management (TQM) in mainland China and received strong support and enthusiastic input from employees for this programme. Focusing on

This quadcopter drone is just one of the many advanced tools used by our technical professionals to ensure the safety of our network.



the highest standards of craftsmanship, courtesy and integrity, it enables us to take customer service to a new level of excellence.

In the past 15 years, our senior management have been making personal visits twice a year to the operations of selected joint venture companies to inspect the quality of work of our frontline staff and set an example for them.

Another distinguishing feature of TQM is our Three Courtesies service programme, emphasising

“manners”, “etiquette”, and “politeness” in the daily interactions of our people with customers. The Three Courtesies was also the theme of the 2018 Service with a Smile Ambassadors contest, organised every three years to recognise our frontline staff and enhance service quality. During the contest, 45 ambassadors out of over 1,500 participants were selected as “exemplars” for promoting our service culture of professionalism, integrity and courtesy among our joint ventures and in the community.

Safety at Home and at Work

We are firmly committed not only to maintaining but improving our high standard of safety among our staff and the many customers we serve.

To that end, we make regular safety inspections at our customers’ homes to ensure that their gas installations and equipment are in safe working order. Originally launched in Hong Kong during the 1990s, these inspections were introduced in mainland China

when we started operating there and have now become a common practice throughout the industry. Additionally, we have made a tremendous effort to educate our customers about gas usage safety by sharing our experience and tips with them on the proper handling of gas and gas appliances.

Within our own operations, we conduct regular safety and risk audits every two years. In 2017/18, we evaluated 106 of our joint venture companies. All of these companies met the requirements, and nearly half received an “excellent” rating with scores of more than 90 out of 100.

The overall safety record of our joint venture companies has improved significantly since 2009, as can be seen in the 80 per cent reduction in the incident rate over the past decade.

2018 Utility Businesses in Mainland China

Towngas Piped City-Gas Projects

GUANGDONG PROVINCE

	Year of Establishment	Project Investment Rmb M	Registered Capital Rmb M	Equity Share %
Panyu	1994	260	105	80%
Zhongshan	1995	240	96	70%
Dongyong	1998	178	75	82.6%
Shenzhen	2004	–	2,878	26.47%
Chaoan	2007	185	99	60%
Chaozhou Raoping	2011	189	106	60%

CENTRAL CHINA

Wuhan	2003	1,000	420	49%
Xinmi	2009	205	85	100%

EASTERN CHINA

Yixing	2001	246	124	80%
Taizhou	2002	200	83	65%
Zhangjiagang	2003	200	100	50%
Wujiang	2003	150	60	80%
Xuzhou	2004	245	125	80%
Suining	2009	155	67	100%
Fengxian	2009	60	31	100%
Peixian	2015	300	100	100%
Danyang	2004	150	60	80%
Jintan	2006	150	60	60%
Tongling	2006	240	100	70%
Suzhou Industrial Park	2001	600	200	55%
Changzhou	2003	248	166	50%
Nanjing	2003	1,200	700	49%
Fengcheng	2007	206	88	55%
Pingxiang	2009	297	105	100%
Jiangxi	2009	52	26	56%
Zhangshu	2009	86	34	100%
Yonganzhou	2010	100	68	93.9%
Hangzhou	2013	2,988	1,195	24%

SHANDONG PROVINCE

Jinan East	2003	610	470	49%
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NORTHERN CHINA

Jilin	2005	247	100	63%
Beijing Economic-technological Development Area	2005	111	44	49%
Hebei Jingxian	2011	186	79	81%

NORTHWESTERN CHINA

Xi'an	2006	1,668	1,000	49%
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HAINAN PROVINCE

Qionghai	2008	110	50	49%
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Midstream Projects

Guangdong LNG	2004	8,595	2,578	3%
Anhui NG	2005	–	336	20.61%
Hebei NG	2005	2,760	920	43%
Jilin NG	2007	360	220	49%
Henan NG	2012	125	60	49%
Jintan NG (Phase 1)	2013	180	100	64%
Jintan NG (Phase 2)	2018	890	300	100%
Huanghua Port LNG	2017	90	90	20%

LNG Refilling Station

Nanjing (Marine)

	Year of Establishment	Project Investment Rmb M	Registered Capital Rmb M	Equity Share %
	2014	600	217	32.95%
Water/Waste Treatment Projects				
Wujiang	2005	2,450	860	80%
Suzhou Industrial Park	2005	4,705	1,597	50%
Wuhu	2005	1,000	400	75%
Suzhou Industrial Park (Industrial Wastewater Treatment)	2011	550	185	49%
Maanshan	2013	607	213	100%
Jiangbei	2013	1,049	374	100%
Suzhou Industrial Park (Food Waste Processing and Utilisation)	2016	220	75	55%
Foshan Water Environmental Protection	2018	824	824	26%

Towngas China Piped City-Gas Projects

GUANGDONG PROVINCE

Foshan
Shaoguan
Qingyuan
Yangdong
Fengxi

EASTERN CHINA

Nanjing Gaochun
Dafeng
Tongshan
Hubei Zhongxiang
Maanshan
Bowang
Zhengpugang Xin Qu Modern Industrial Zone
Wuhu Fanchang
Wuhu Jiangbei
Anqing
Chizhou
Tunxi
Huangshan

Huizhou
Tongxiang
Huzhou
Yuhang
Songyang
Changjiu
Fuzhou
Jiujiang
Wuning
Xiushui
Yifeng
Changting

SHANDONG PROVINCE

Jimo
Laoshan
Zibo
Zibo Lubo
Longkou
Jinan West
Weifang
Weihai
Taian
Chiping

Linqu
Laiyang
Zhaoyuan
Pingyin
Feicheng
Boxing Economic Development Zone
Yangxin
Wulian

HUNAN PROVINCE

Miluo

NORTHEASTERN CHINA

Benxi
Chaoyang
Tieling
Fuxin
Shenyang Coastal Economic Zone
Yingkou
Dalian
Changxingdao

Dalian Economic and Technical Development Zone
Anshan
Lvshun
Kazuo
Beipiao
Wafangdian
Xinqiu
Jianping
Changchun
Gongzhuling
Siping
Qiqihar

HEBEI PROVINCE

Qinhuangdao
Yanshan
Cangxian
Mengcun
Shijiazhuang

INNER MONGOLIA

Baotou

SOUTHWESTERN CHINA

Ziyang
Weiyuan
Pengxi
Lezhi
Pingchang
Dayi
Yuechi
Cangxi
Chengdu
Zhongjiang
Jianyang
Pengshan
Mianyang
Xinjin
Xindu
Mianzhu
Jiajiang
Qijiang
Guilin
Zhongwei (Fusui)
Xingyi
Luliang
Liujiang District,
Liuzhou

Midstream Projects

Xuancheng NG
Taian Taigang
Inner Mongolia NG
Jinan-Liaocheng Pipeline & Chiping South Citygate

CNG Refilling Stations

Qiqihar (Lianfu)
Qiqihar (Xingqixiang)

Distributed Energy Systems

Sichuan
Shenyang Economic and Technical Development Zone
Jiawang District, Xuzhou
Jimo Chuangzhi New District, Qingdao
Yangxin Economic & Technological Development Zone, Binzhou
Changchun
Guilin
Tangshan Chengnan Economic Development Zone
Boxing Economic Development Zone, Binzhou
Xuzhou Biomedical Industrial Park

Other Projects

Zhuojia Public Engineering
Towngas Natural Gas Sales



HONG KONG
GAS
BUSINESS

Enriching People's Lives

In homes across Hong Kong, we are making people's lives easier and more convenient through the Total Kitchen Solutions we offer. Together with our popular Mia Cucina line of premium cabinets, our wide selection of appliances and accessories contribute to a more eco-friendly and enjoyable cooking experience.



HONG KONG GAS BUSINESS

As one of Hong Kong's leading utility companies, Towngas is committed not only to providing customers with products and services of the highest quality but also to creating value for the community by offering solutions that help make the earth a greener, better place.

Meeting Customers' Needs

Our overall business performance during the year remained satisfactory. The core gas business in Hong Kong continued to grow steadily as a result of the cooler weather and increase in tourist visits. In 2018, total volume of gas sales was 29,550 million MJ, a growth of 1.7 per cent over last year. The number of Towngas customers also reached 1,908,511, an increase of 25,104 from 2017.

The use of gas absorption chillers continued to grow in 2018. These dual-function chillers offer space cooling and heating as well as hot water while saving energy costs. Among the customers for this technology was Ocean Park, which commissioned a gas absorption chiller for its Ocean Theatre in the first quarter of the year to maintain stable pool water temperatures.



Our gas boilers at this local sauce factory provide steam for cooking the sauce ingredients, as well as sterilisation and space heating in the fermentation room.

We searched for potential new customers for our landfill gas technology, which is based on the green concept of turning waste into energy. Two projects currently employ this clean energy. One is our combined heat and power (CHP) system at the Alice Ho Miu Ling Nethersole Hospital in Tai Po, which began utilising processed landfill gas from the North East New Territories (NENT) landfill site in 2017. The other is our Towngas Telecom Data Centre at Tseung Kwan O, which in 2018 started harnessing processed landfill gas from the South East New Territories (SENT) landfill to fuel a gas absorption chiller.

We looked forward to installing similar landfill gas systems for other clients.

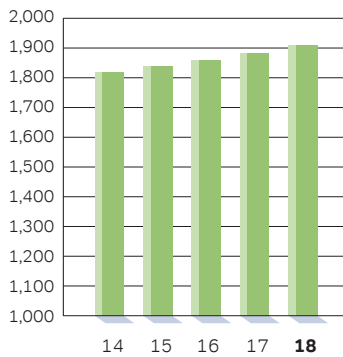
For the Alice Ho Miu Ling Nethersole Hospital project, we were delighted to win the Energy Project of the Year Award 2018 for the Asia Pacific Rim Region from the Association of Energy Engineers (AEE), which recognises innovative energy projects in the region.



We have introduced the TGC x Hello Kitty series of appliances for kitchens and bathrooms.

Number of Customers

Company (Thousand)



Our branded appliances enjoy a high level of consumer acceptance, owing to their quality, innovative features and the backing of our service professionals. More than 283,000 appliances were sold during the year, representing a 3 per cent growth over 2017, in large part due to the supply of new public housing estates in 2018 and the concerted efforts of our marketing team.

New appliances developed by our in-house product research team included a hotplate equipped with Regenerative Electric Energy Module that converts heat energy to ignite the burners, without the need for battery replacement. Since batteries contain heavy metals and toxic chemicals that create a serious risk of soil contamination and water pollution, the introduction of this first-of-its-kind appliance in Hong Kong represented a breakthrough in environmentally-friendly cooking.

Our premium Mia Cucina kitchen line remained especially popular with customers, and in December 2018 we unveiled a new Mia Cucina display area at our North Point showroom. Mia Cucina also continued to be well-recognised by property developers in Hong Kong.



Service

Meet Tinny, our new virtual assistant that responds instantly to enquiries about our residential services.



Hong Kong's first hotplate with Regenerative Electric Energy Module helps reduce waste because there is no need for battery replacement.

Achieving Service Excellence

The success of our business depends on our ability to provide a safe, reliable and secure supply of gas to customers, who depend on us for the energy they use to cook meals for their families and water heating for their homes. Our one-stop shop services and frontline staff earned high customer satisfaction, as evidenced by the approximately 6,000 complimentary letters we received in 2018.

For the greater convenience of customers, we launched a virtual assistant, which makes use of AI technology to answer customer enquiries instantly. We also offered two more electronic payment options, including the

new Faster Payment System (FPS) and eWallet – AlipayHK for customers to settle their bills, in line with the market trend.

Continual innovation has helped us to improve productivity and service delivery. One of the innovations we developed was the Portable Multi-Tester, which allows our frontline technicians to quickly diagnose defects in gas water heaters. We also launched our digital mobility solution, which has changed the way we perform our inspection and maintenance services. Relaying service orders electronically to tablet devices carried by our frontline technicians, the system replaces traditional printed service orders and allows for instant retrieval of customer service records and data analysis.

During the year, we organised two MasterCraft contests to encourage our staff to achieve a higher standard of installation. For these contests, we invited technicians and contractors from Hong Kong and mainland China to demonstrate their expertise in installing Mia Cucina cabinets and appliances.

In recognition of the outstanding service quality provided by our customer service teams, we won gold awards in the categories of Digital Transformation and Contact Centre Service under the Customer Service Excellence Award 2018 organised by Hong Kong Association for Customer Service Excellence. We were also honoured to receive the *Sing Tao Daily's* Sing Tao Service Awards – After Sales Services Award for a tenth consecutive year and *East Week's* Hong Kong Service Awards – Public Utilities for the eighth year.

2018 Results of Towngas Service Pledge

Reliability



Uninterrupted gas supply
(over 99.99%)
99.990%

3 days prior notification in case of supply interruption on account of maintenance or engineering work
100%

Restoration of gas supply within 12 hours
100%

Safety



Emergency Team average arrival time
(within 25 minutes)

**Average
22.8 minutes**

Appointments



Availability of maintenance and installation services within 2 working days

**Average
1.1 days**

Service Quality



Efficiency*
8.92

Courteous and friendly attitude*
8.88

Speed and Convenience



Customer Service Hotline (calls answered within 4 rings)
96.13%

Connect or disconnect gas supply within 1 working day
100%
(upon customer's request)

Deposit refunded at Customer Centres 2 hours after disconnection of gas supply
100%
(upon customer's request)

Handling Suggestions



Reply within 3 working days
100%

Resolution, or a statement of when the matter will be resolved, within 2 weeks
100%

* The result was based on surveys conducted by an independent research company. Our target is to exceed a score of 8 out of 10.

Safety



Safe and Reliable Infrastructure

At Towngas, we have a proactive maintenance and inspection regime that ensures our gas network remains highly reliable, with a low seepage rate and minimal disturbance from third-party construction activities. In 2018, we were pleased to note that we had achieved the best safety performance in our gas pipeline network. Additionally, we brought down the number of public reported leaks to the lowest in 30 years. Third-party damage incident was also reduced to 8, a single-digit figure for the second time in our record.

If any event demonstrated the robustness of our gas infrastructure and the professionalism of our people when handling extreme weather events, it was super typhoon Mangkhut, one of the most powerful storms to hit Hong Kong since 1946. All of our operation staff were either at

work ready to deal with the situation or on standby during the typhoon. Fortunately, there was no serious gas stoppage or damage to our network or plants thanks to the precautions we had taken beforehand.

In 2018, we continued introducing innovative tools to improve our piping works. These included a coring machine for removing pipes, which helps us avoid unnecessary road openings, as well as auto-pilot drones for inspecting difficult-to-reach slope pipes in remote areas. When roadwork is necessary, we can provide contractors with an accurate record of the location of our pipes, including their depth. As contractors undertake roadworks, we will coordinate closely with them and deploy staff to detect any gas leakages while they are digging.

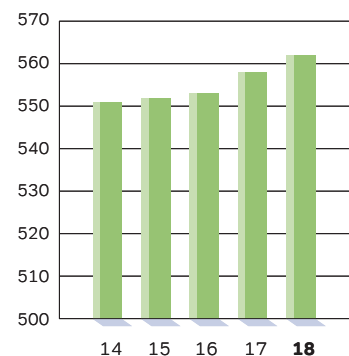
Additionally, we make use of an In-line Intelligent Pigging Inspection device that can be inserted into a pipeline without

interrupting gas supply. During the year, it helped us to inspect 137km of our 35 Bar high pressure network and determine that the integrity of our transmission gas supply network was satisfactory.

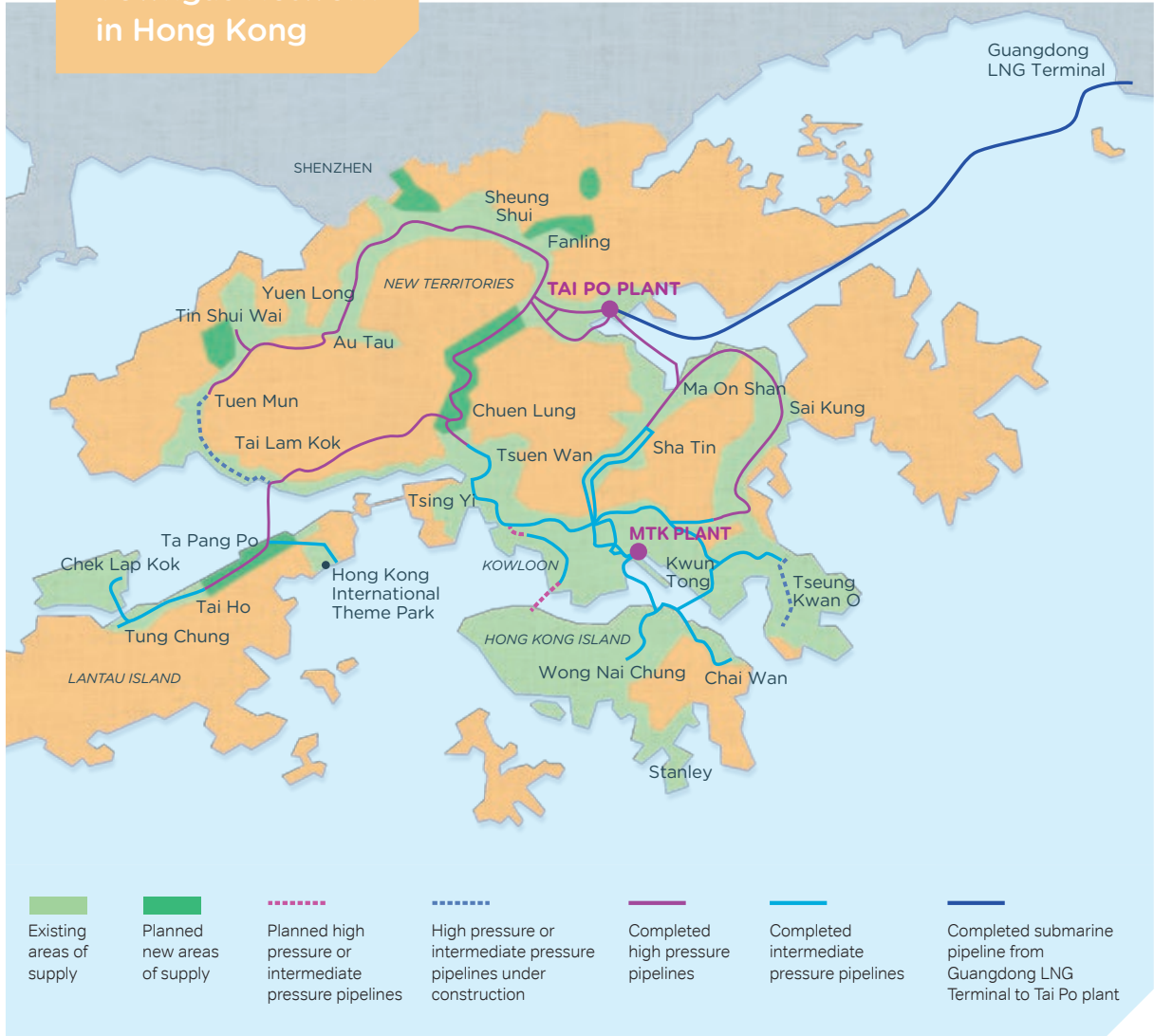
Work on our pipeline network during the year included the extension of the network between Tuen Mun and Tsuen Wan, which we expect to finish in mid-2019. When completed, it will form a ring-feed system that will dramatically increase supply security for North West New Territories. Progress was also made in the extension of our network to handle the gas supply needs of the third runway at Hong Kong International Airport and New Development Areas, as well as Water World and hotel developments at Ocean Park.

Number of Customers per km of Mains

Company



Towngas Network in Hong Kong





NEW ENERGY
AND DIVERSIFIED
BUSINESSES

Heading in a New Direction

Today, ECO Environmental Investments Limited is pursuing proprietary new technologies based on the concept of turning waste into high value renewable energy, chemicals and advanced materials. With our growing portfolio of green products that include hydro-treated vegetable oil (HVO) to be used as biofuel for vehicles, we are helping to create a brighter, more sustainable future for all.



NEW ENERGY AND DIVERSIFIED BUSINESSES

The key proposition of our new energy business is to create value through the development of clean energy, chemicals and advanced material products that not only bring substantial returns to the Group and its investors but also address the pressing environmental challenges faced by the global community.

New ECO Energy

In 2000, ECO Environmental Investments Limited (ECO) was established as a business platform for pursuing new energy opportunities. Since then, ECO has embraced the conversion of low value feedstocks into high value products as its core strategy. These feedstocks, which primarily comprise waste, are used to produce clean energy and advanced chemical and material products.

As symbolised by its company logo, ECO has always put ecological friendliness at the core of its business. Recognising that technological innovation would power its green journey, ECO has been strengthening its research and development capabilities and now has two research facilities in Shanghai and Jiangsu province, respectively.

Today, ECO has already developed a strong list of proprietary technologies, many of which are ready to be implemented and will be instrumental in defining ECO's competitive edge. With these technologies, a sustainable



Trial production began at ECO's HVO plant in Zhangjiagang, Jiangsu province, with the potential of making a significant contribution to carbon reduction.

business portfolio is gradually taking shape, including products based on unconventional gas resources, agricultural waste, bio-grease waste and tar oil.

ECO's vision is to become a world-class green industry leader, to provide solutions that overcome environmental challenges arising from climate change, and respond to sustainable development for future generations.

From LNG to Advanced Biofuels

During the year, our liquefied natural gas (LNG) plant in Shanxi province marked its 10th anniversary of shipping LNG to customers. This plant liquefies the coalbed methane extracted from the seams of neighbouring coal mines and converts it into LNG, a source of green energy in high demand in the region.

Coalbed methane is a potent greenhouse gas (GHG) if inadvertently released into the atmosphere. By capturing coalbed methane and putting



This new plant set up by ECO started production of high-quality ethylene glycol in Ordos, Inner Mongolia Autonomous Region.

this unconventional gas resource into commercial use, ECO has been making a significant contribution towards the reduction of GHG emissions.

Following the 2015 Paris Agreement, in 2018 the EU signed off on a new set of Renewable Energy Directives.

These Directives call for increasing Europe's overall renewable energy targets to 32 per cent by 2030 and raising its target for the transport sector to 14 per cent.

At Zhangjiagang, Jiangsu province, ECO has successfully put into trial production a plant to produce HVO. In 2018, two shipments of HVO totalling 7,000 tonnes were exported to European markets. As HVO can be readily blended with diesel oil, these shipments will help to meet Europe's renewable energy targets.



At ECO's R&D centre at Zhangjiagang, Jiangsu province, our researchers are developing new proprietary green technologies.

ECO's HVO is an advanced biofuel produced from palm oil mill effluent (POME), a feedstock with low indirect land use change (ILUC) impacts. Certified under the International Standard of Carbon Certification (ISCC) Scheme, ECO's HVO will help achieve a significant reduction in carbon emissions and meet the demand for more advanced biofuels as the world steps up its efforts to combat climate change. ECO is now expanding its HVO production facility at Zhangjiagang and is continuing to improve its process technology, while also exploring the potential of other feedstocks such as used cooking oil.

In addition to HVO, ECO has been researching the conversion of agricultural waste into cellulosic ethanol, another important advanced biofuel that can be blended with gasoline to offer significant reductions in carbon emissions.

From Fuels to High Value Chemicals

After years of producing methanol from coal at its plant in Ordos, Inner Mongolia Autonomous Region, ECO has added an ethylene glycol (EG) production unit, which makes use of 40 per cent of the syngas derived from coal gasification.

Gasification is a clean technology for turning coal into syngas for further chemical transformation, without emitting flying ash, SO_x (which is fully recovered as pure solid sulphur), or NO_x. The EG produced from syngas has much

higher value than methanol, as it is a chemical in wide demand for the manufacture of polyester fibres. Since mainland China has an enormous textile industry and today imports most of the EG it uses, the prospect of producing this chemical from China's abundant coal resources has been widely welcomed by the industry.

The production of EG has opened the door for ECO to produce other high value chemicals. Among these, ECO has been researching the production of dimethyl carbonate (DMC) using two possible approaches: the more advanced carbonylation of methyl nitrite process, and the synthesis of methanol with carbon dioxide. ECO plans to test these new technologies in 2019 and sees particularly good potential for DMC, a fuel oxygenate additive that could help to reduce emissions of carbon and particulate matters.

ECO is also researching the production of high value chemicals using agricultural waste as a feedstock. After each harvest season in China, vast amounts of agricultural waste that are unavoidably produced have, until now, been either ploughed back into the field, which damages top-soil, or incinerated in-situ, which causes extensive air pollution. Our ECO's research, therefore, will have profound economic and environmental benefits for the country.



Agricultural waste produced during the harvest season is now being used by ECO as a feedstock for high value chemicals.

After years of R&D, ECO has successfully developed an innovative method to decompose agricultural waste into its three basic components, namely cellulose, hemicellulose and lignin. Our pilot production plant, situated in mainland China's corn belt of Tangshan, Hebei province, is expected to start trial production of furfural and paper pulp by the end of 2019. Further research is now on-going to exploit the vast potential of hemicellulose and cellulose.

Carbon Materials Development

In the push to make transport more environmentally-friendly, many governments around the world are throwing their support behind electric-powered vehicles. Some European countries have even announced plans to ban internal combustion cars by 2040. Successfully electrifying transportation, however, will largely depend on breakthroughs in the continuing development of on-board power storage

technologies and a new generation of light-weight auto body materials.

To that end, ECO has developed a patented technology to extract high-quality activated carbon and mesophase pitch from tar oil, a by-product of the coke making process, with potential use in the manufacture of super capacitors, graphitic anode and carbon fibre. Currently, ECO is designing a demonstration plant in Inner Mongolia Autonomous Region for the manufacture of activated carbon and pitch to be used in carbon fibre spinning. Construction of the plant is expected to commence in 2019.

Business in Hong Kong

Despite uncertainties in the global economic and political environment, the overall business performance of ECO in 2018 was positive.

Both our aviation fuel and LPG filling station businesses remained stable. Our airport-based aviation fuel tank farm operation, one of the largest of its kind in the world, received and delivered about 6.76 million tonnes of jet-A1 fuel to Hong Kong International Airport in 2018. Since the signing of a 40-year franchise agreement with Hong Kong Airport Authority in 2002, the operation has generated steadily increasing income. Our LPG filling station business, with five dedicated stations for taxis and minibuses, continued to run smoothly and sold nearly 60,000 tonnes for a revenue of over HK\$400 million.

In Hong Kong, we also make use of landfill gas collected from two strategic landfills: the North East New Territories (NENT) and South East New Territories (SENT). In addition to the NENT facility, which has been in operation since 2006, the new facility at SENT recorded its first full year operation in 2018. By collecting and utilising landfill gas

that would otherwise have been flared off, these landfill sites have substantially reduced in-situ GHG emissions. Furthermore, treated landfill gas is used as a substitute for naphtha in town gas production, which is the renewable portion of our energy mix.

Telecommunications

Our telecommunications business in Hong Kong and mainland China is handled by Towngas Telecommunications Company Limited (TGT), which offers connectivity and data centre and cloud computing services for international and local telecommunications service providers, operators and corporations, among others. During the year, the business of this subsidiary continued to grow steadily.

In Hong Kong, our competitive advantage in this sector is based on our Glass-In-Gas (GIG) technology, which enables optical fibres to be installed within our extensive gas pipe network – a more cost-effective and interference-free alternative to traditional road opening methods. During the year, we extended our fibre network to Sai Kung so that customers there could enjoy the highly reliable transmission quality and comprehensive services

provided by TGT. This technology is also

being applied in mainland China, where we have obtained Technical Standards for Laying Fibre Casing Pipe in Gas Pipeline approval from China Gas Association. TGT is currently expanding its connectivity business on the mainland through cooperation with a strategic partner to integrate their combined resources.

TGT is also involved in the data centre business, leveraging its strengths in connectivity, the cloud and fog computing to deliver cutting-edge total solutions to customers. As a leading data centre infrastructure provider, TGT offers bespoke professional management and reliable cloud computing services through its world-class data centre in Hong Kong and mainland China.

Currently, TGT operates seven large-scale data centres in San Po Kong and at Tseung Kwan O Industrial Estate in Hong Kong, and in Beijing, Dalian, Dongguan, Harbin and Jinan on the mainland. Together, these data centres can accommodate up to 16,000 server racks.

International awards and recognitions received by TGT during the year included the Digital Transformation Award at the 13th China IDC Industry Annual Ceremony and the Solution of the Year FY17 at the Hitachi Vantara Partner Summit 2018.



Cleanness

In order to capitalise on the fast-growing business demand for advanced data centres, TGT will be expanding its footprint to Taiwan and, ultimately, bringing its business know-how and expertise to the world.

Information Technology

Our wholly-owned subsidiary, S-Tech Technology Holdings Limited (S-Tech), was set up to meet the information technology needs of our joint venture projects. The core activities of this business include the provision of software development, solution implementation and systems integration services for our city-gas businesses' advanced customer service and piping network management needs.

In 2018, the services of S-Tech's Towngas Customer Information Systems were provided to 85 per cent of the Group's city-gas joint ventures on the mainland, 64 per cent of which are now using the latest cloud version to reduce operational costs and shorten development cycles. A total of more than 15 million customers currently enjoy these services.

Other services offered by S-Tech to city-gas joint ventures include mobility applications for meter reading, maintenance services

and Regular Safety Inspections for residential, commercial and industrial customers, all of which are designed to save management costs and improve service quality.

In 2018, S-Tech launched a new product, the Artificial Intelligent Call Centre System, which has been implemented in several joint ventures. S-Tech also continued working on the integration of its Towngas Customer Information System with other systems, including the Virtual Customer Centre, NFC/remote meters, Towngas Payment Platform, Towngas Management System, as well as the e-Invoice platform.

Civil and Building Services Engineering

U-Tech Engineering Company Limited (U-Tech) is a wholly-owned subsidiary of the Group providing consultancy and engineering contractor services in Hong Kong and Macao. Among the services it offers are utilities installation, infrastructure

construction, trenchless technologies, and civil and building services engineering for public and private projects.

In 2018, U-Tech celebrated its 20th anniversary and its growth from a small gas pipelaying contractor into a reputable multi-disciplinary engineering professional service provider today. The year was also significant for the Company's acquisition of the Permanent Group C Waterworks Tenderer qualification of the Hong Kong Government, its highest tender category. As a result, U-Tech became eligible to bid for unlimited tender sums from the Water Supplies Department. During the year, U-Tech also won a waterworks contract for the construction of a fresh water services reservoir and the associated pipeworks at Fanling.

Other new business secured in 2018 included U-Tech's first contract with Evergrande for fire

The environmentally-friendly TGT Dalian Data Centre 1 received the LEED CS (Core and Shell System) Gold Level Certificate of the U.S. Green Building Council.





U-Tech uses its expertise and advanced technology to provide first-class maintenance services for water facilities in Hong Kong's outlying islands, allowing residents to enjoy clean, potable water.

services installation works at their residential development at Tuen Mun and the first supply and installation of electrical works contract with Wheelock for their residential development at Plantation Road. U-Tech also acquired the first supply and installation of electrical works contract from Gammon Construction for Goldin's residential development at Homantin.

Recognitions of U-Tech's high quality and safety standards during the year included a fifth consecutive Safety Performance Award – Construction from the Occupational Safety and Health Council.

Manufacturing

M-Tech Metering Solutions Company Limited (M-Tech), a wholly-owned subsidiary of the Group, develops and markets

proprietary smart gas meters. These meters are based primarily on Micro-Electro Mechanical Systems (MEMS) technology to ensure greater accuracy under various temperature and pressure conditions.

In 2018, M-Tech launched an advanced small commercial meter with MEMS technology that replaces conventional diaphragm meters. Since its launch in early 2018, the meter has become well accepted in mainland China for its pre-payment and smart metering functions that compile tier tariffs. Its features allow for tariff prepayments, tier tariff settings and gas consumption records to avoid conflicts in the event of a tariff adjustment. Others include gas safety functions that provide regular safety inspection alerts, excess flow cut-off and external interference alarms.

M-Tech is also developing other smart meters for residential applications, which are in high demand in Europe where customers are increasingly turning to smart meters.

Another wholly-owned subsidiary of the Group, G-Tech Piping System (Zhongshan) Company Limited (G-Tech) manufactures high-quality polyethylene (PE) pipes, supported by GH-Fusion Corporation Limited, which specialises in PE fittings.

During the year, G-Tech expanded its production capacity by adding a pipe extrusion production line at its plant in Maanshan, Anhui province, to attract new clients in the growing markets of eastern China. With the addition of the Maanshan plant in 2016, G-Tech currently operates two factories on the mainland, including its original extrusion plant in Zhongshan, Guangdong province.

As M-Tech and G-Tech continue to broaden their product range, both companies will be seeking further opportunities to acquire new customers in mainland China as well as in overseas markets.

2018

New Energy and Other Projects

New Energy Projects

COAL MINING

Inner Mongolia Ordos Kejian

2011 681 486 100%

COAL-BASED CHEMICALS

Jiangxi Fengcheng

2009 1,250 350 40%

Inner Mongolia Ordos

2009 1,620 1,017 100%

CNG/LNG REFILLING STATIONS

Shaanxi Xianyang

2008 12 12 100%

Shaanxi Huitai

2010 54 27 100%

Shaanxi Lueyang

2014 21 13 100%

Shaanxi Fengxiang

2014 30 15 100%

Shaanxi Shenmu

2015 60 38 100%

Shaanxi Baoji

2015 29 14 100%

Shaanxi Zhouzhi

2016 14 10 100%

Shaanxi Weinan Gushi

2016 21 14 100%

Shaanxi Weinan Tianshi

2016 15 11 100%

Shaanxi Hancheng

2016 46 41 90%

Shanxi Yuanping

2008 40 20 42%

Shanxi Lingshi

2013 25 20 75%

Shanxi Xinzhou

2016 30 15 100%

Shandong Chiping

2010 30 15 100%

Shandong Dongping

2010 43 26 91%

Shandong Jiaxiang

2012 50 28 100%

Shandong Weishan

2014 58 29 100%

Shandong Shanxian

2014 28 14 100%

Shandong Linqing

2014 22 13 100%

Shandong Heze

2015 23 13 90%

Hebei Shijiazhuang

2014 65 31 100%

Xingtai (Gangxing)

2014 20 17 80%

Xingtai (Xinghua)

2016 24 23 80%

Henan Xinmi

2010 29 15 100%

Henan Anyang

2012 29 14 100%

Henan Kaifeng

2013 29 15 100%

Henan Linzhou

2013 30 20 100%

Henan Nanyang

2015 14 10 100%

Henan Wuyang

2017 15 15 85%

Inner Mongolia Huhhot

2014 28 14 90%

Inner Mongolia Wulatezhong Qi

2015 11 8 100%

Inner Mongolia Xiwuzhumuqin Qi

2015 30 15 100%

Inner Mongolia Chifeng

2015 30 15 100%

Inner Mongolia Chaha'eryouyiqian Qi

2015 30 15 100%

Inner Mongolia Xilingol

2016 30 15 100%

Inner Mongolia Ulanqab Huade

2016 29 14 100%

Inner Mongolia Ulanqab Chahar

2016 15 11 100%

Inner Mongolia Bayannur Uradqian Qi

2016 15 7 100%

Inner Mongolia Bayannur Linhe

2016 14 10 90%

Inner Mongolia Bayannur Hanggin

2016 13 10 90%

Ningxia Guangwuxian

2015 15 11 100%

Ningxia Qingtongxia

2015 21 15 100%

Ningxia Jinyintan

2015 28 14 100%

Ningxia Zhongwei

2016 18 12 100%

Ningxia Zhongwei Haixing Development Zone

2016 30 15 100%

Jiangxu Xuzhou

2015 40 20 80%

Anhui Maanshan

2006 15 11 30%

New Energy Projects

CNG/LNG REFILLING STATIONS

Jiangxi Pengze	2015	45	30	70%
Guangdong Guangzhou	2013	26	13	100%

UPSTREAM PROJECTS

Shanxi LCBM	2006	600	200	70%
Jilin Tianyuan	2007	140	5	50%
Xuzhou COG	2014	450	150	80%

COAL LOGISTIC PROJECT

Shandong Jining Jiexianggang Logistic Port	2011	540	180	88%
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BIOMASS

Zhangjiagang	2014	840	271	100%
Hubei Xingzhou	2017	170	134	100%
Luanzhou	2017	280	140	100%

Oilfield Project

Phetchabun Province in Thailand	2012	USD 181M	USD 12,000	100%
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Telecommunication Projects

Shandong Jinan	2008	80	40	90.1%
Shandong Jinan Chibo	2009	504	168	87.4%
Shandong Laiyang	2011	14	USD1.6M	90%
Xuzhou Fengxian	2011	11	8	100%
Xuzhou Peixian	2012	13	9	100%
Liaoning Dalian DETA	2010	14	10	49%
Dalian Yida	2011	190	76	90%
Harbin	2013	158	63	80%
Beijing Zhongjing	2014	14	10	49%
Beijing Chibo	2014	14	10	98.7%
Dongguan	2013	240	80	60%
Shenzhen (Qianhai)	2014	59	30	100%
Shenzhen (Interlink Connectivity)	2015	100	40	30%

Other Projects

Shenyang Sanquan Construction Supervisory	2011	4	3	60%
ECO Engineering Management (Xi'an)	2014	13	9	100%
Suzhou Industrial Park Broad Energy Services	2012	170	71	25%
GH Yixing Ecology	2013	184	184	100%
Dalian (New Energy Technology)	2015	USD 4.75M	USD 4.75M	55%
M-Tech	2011	60	30	100%
GH-Fusion	2001	87	43	50%
G-Tech	2012	77.5	41	100%
Towngas Technology	2011	30	21	100%
S-Tech (Zhuhai)	2014	14	7	100%
ECO Engineering Management (Shenzhen)	2014	30	15	100%
Towngas Life Style	2015	7	5	100%
Towngas Payment Technology (Shenzhen)	2015	50	28	100%
Hong Kong & China Gas International Energy Trading	2016	125	50	100%
Mia Cucina Kitchen Cabinets (Shenzhen)	2017	125	50	100%
Inner Mongolia Ordos Carbon Material	2017	640	240	100%



A person's hands are visible in the foreground, holding a black VR controller. In the background, a laptop is open on a desk. The setting appears to be a classroom or computer lab with a green mesh chair and a white wall.

CORPORATE
SOCIAL
RESPONSIBILITY

Envisioning a Better Tomorrow

Since our future lies in the hands of the younger generation, we are helping them to see the value of thinking sustainably. In our first Green Flame Project – Inter-School VR Game Design Competition, we not only inspired students to consider the most pressing environmental challenges of our time, but also encouraged them to apply their creativity to design VR games with compelling sustainability messages, as amply demonstrated by the winners of the competition. Through educational initiatives such as these, we believe we can make a lasting difference in people's lives.

** Students from ELCHK Lutheran Academy*

CORPORATE SOCIAL RESPONSIBILITY

New Goals of Sustainability

To focus on the sustainability issues that matter most to us, in 2018 our Sustainability Committee endorsed the following four of the 17 Sustainability Development Goals (SDGs), launched by the United Nations in 2015 as part of its 2030 Agenda for Sustainable Development.

SDG 6 Clean Water and

Sanitation: Through Hua Yan Water, our water business in mainland China, we invest in and operate water and wastewater treatment projects and have recently invested RMB550 million in a new water services joint venture for the Greater Bay Area.

SDG 7 Affordable and Clean

Energy: In both Hong Kong and mainland China, we supply clean energy, including city-gas and landfill gas. We have also been developing environmentally-friendly energy businesses, such as the hydro-treated vegetable oil (HVO) plant in Zhangjiagang for the production of biofuel, which is cleaner than traditional fossil fuels.

At Towngas, we are committed to creating value for all of our stakeholders as part of our core strategy. By operating in a socially- and environmentally-responsible manner, we believe we can make a difference in people's lives and help contribute to a more sustainable world for future generations.

SDG 11 Sustainable Cities and

Communities: To meet the need for gas infrastructure in the cities and communities we serve, we make use of efficient processes and innovative technology to maintain a safe, reliable and affordable supply of gas.

SDG 13 Climate Action:

We recognise the need to cope with the effects of climate change and have taken action to address global temperature rises by conducting climate change risk assessments and decarbonising our business operations.

Creating a Greener Future

We believe we can play a role in contributing to a greener future through our businesses. We strive to reduce our carbon footprints and develop innovative environmentally-friendly energy solutions that make our world a better place.

Developing Environmental Solutions

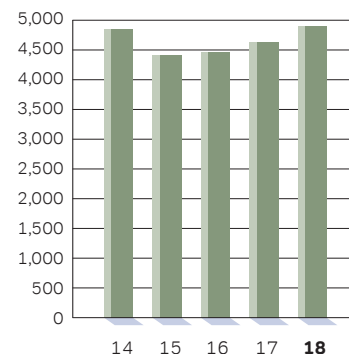
We continued to provide green energy solutions for our customers through initiatives such as our landfill gas projects, which since 1999 have reduced

total carbon emissions by 430,000 tonnes – the amount of carbon absorption of 18.5 million trees in one year. With our successful landfill gas project at Alice Ho Miu Ling Nethersole Hospital in Tai Po, we are exploring more potential applications, particularly for hospitals and data centres, to undertake similar landfill gas projects.

In our own operations, we started work on a Cloud Based Energy Management System. This new system will allow us to access information more efficiently, monitor our operations more closely, and create better energy-saving plans through means such as chiller plant optimisation.

Revenue per Employee

Company (HK\$ thousand)





During our organic farming events, members of the public and Towngas staff experienced low-carbon living by planting vegetables and sharing the harvest.



Green

As a supporter of Hong Kong's Feed-in Tariff (FiT) Scheme promoting renewable energy, we planned to install solar power facilities at our premises, including off-take stations.

To prepare for the new waste regulations in Hong Kong, we reviewed our waste management practices and published an *In-house Green Event Practical Guide* to help internal parties reduce and recycle waste when organising events.

Raising Public Awareness of Sustainability

In 2018, we launched a green advertising campaign on public transport vehicles such as buses, trams and green minibuses, encouraging people to take action on environmental protection. Additionally, we organised a radio campaign

featuring well-known local DJs, who discussed green messages such as turning waste into energy, environmental cooking and appliance recycling.

To reduce paper consumption, we encouraged customers to use our eBilling service. During the year, we organised a lucky draw promotion for Towngas eBilling customers to register via our online Virtual Assistant for the chance to win prizes. For every new eBilling application received during the promotion period, we would donate HK\$10 to a green group chosen by the applicant. We will continue this donation programme in 2019.

We also supported a wide variety of public education programmes by green groups, including Green Earth's Plantation Enrichment Project (PEP),

WWF's Earth Hour and The Conservancy Association's Eco Rangers, among others. Additionally, we organised the Low Carbon Cooking So Easy event to promote a healthy, low-carbon lifestyle for kindergarten, primary school and secondary school students.

During the year, we also hosted visits for teachers, students and environmental groups at our facilities, including our headquarters, production plants and landfill gas utilisation sites, to raise awareness of our environmental initiatives.

Serving the Community

We touch people's lives in many different ways, not only through the products and services we offer but through our programmes that help improve social integration and community wellbeing. Our Towngas Volunteer Service Team of more than 900 volunteers, which will celebrate

its 20th inauguration anniversary in 2019, spent 91,628 hours on 265 community service projects in Hong Kong this year, making up an accumulated record of 875,677 hours.

Caring for Those in Need

We provided a variety of caring services for the elderly during the year, including the We Can Cook programme for the Young Old organised with the Hong Kong Sheng Kung Hui Welfare Council and Institution of Dining Art. Since 2016, this programme has been giving people who retire at an earlier age the opportunity to pursue their interest in cooking through classes taught by professional chefs.

To reach elderly people with Mild Cognitive Impairment, we again joined the Welfare Council to provide cooking classes as part of the Chef Anchor programme. First held in 2017, the programme this year offered a new cognitive training cookbook, *I Can Cook*, designed by occupational therapists and Towngas cooking instructors. A Towngas Chef Anchor Volunteer Team was also established to visit elderly participants in their homes and record their progress for follow-up by social workers.

This programme has acquired a number of awards in Hong Kong and overseas, including the Best Dementia Care award in the 6th Eldercare Innovation Awards, Singapore.

To provide career opportunities for people with disabilities, Towngas supported SAHK's LOHAS Florists programme, which provided disabled students with training in flower art, pesticide-free farming and shop operations. We subsidised the purchase of farming equipment at the association's rooftop flower beds and invited students to the farm of our Volunteer Service Team to learn how to grow pesticide-free vegetables and fruits, which they could then sell in the local community. Moreover, Towngas and the association held a low-carbon cooking competition at the From Farm to Fork Carnival, where the ambassadors applied what they had learnt and cooked with the ingredients they had grown.

Other caring programmes included the annual Rice Dumplings for the Community campaign promoting the traditional wrapping of rice dumplings, as well as a mooncake donation programme for those in need. A similar programme was held in mainland China, where around 1,800 volunteers from Towngas China joined more than 90 of our joint venture partners to prepare nearly 51,000 dumpling packs and gifts worth RMB408,600 for over 13,300 beneficiaries. Moreover, we also continued to

run our traditional "Long-boiled Soup" campaign, during which we delivered 50,150 servings to the elderly in Hong Kong.

Engaging the Younger Generation

As young people will help shape our future, we launched our first Green Flame Project – Inter-School VR Game Design Competition. Through this competition, we hoped to raise awareness of environmental issues among primary and secondary students and inspire them to design creative VR games based on environmental themes such as combatting climate change and reducing waste. The winning games were



A participant enjoys flame cooking with assistance from a volunteer of the Chef Anchor programme, which helps patients with Mild Cognitive Impairment regain their confidence.

also showcased during our Green Fun Fair at a shopping mall, helping to spread the green messages to the public.

In mainland China, our colleagues continued to carry out meaningful educational initiatives through programmes such as the Towngas Gentle Breeze Movement. During the year, we donated school uniforms, teaching aids and daily necessities to over 900 teachers and students. They also built Towngas China Charity Libraries and renovated student dormitories and teacher offices in Baotou, Inner Mongolia, and Changting, Fujian province. Since 2013, the Towngas Gentle Breeze Movement has invested more than RMB3.5 million, helping 37 schools in areas of Jiangxi, Anhui, Jiangsu,

The Green Flame Project – Inter-School VR Game Design Competition was organised with HKEdCity to raise awareness of green issues among primary and secondary students.



Shandong, Guizhou, Shaanxi, Liaoning, Guangdong, Inner Mongolia and Fujian. This programme has earned us the 2018 Excellent Chinese Corporate Charitable Project organised by China Social Work Federation Corporate Citizenship Committee, CCTV, Tencent Charity Foundation and the CSR China Top 100 in The Third CSR China Education Awards.

Building a Sustainable Workforce

Our people are the backbone of our company and the most critical element in our business success. During the year, we initiated a wide range of programmes that helped them build their professional skills, ensured their safety and wellbeing, and made them feel valued as employees of Towngas.



These young students at a school in a remote area of mainland China are benefiting from the teaching aids and daily necessities donated under the Towngas Gentle Breeze Movement.

One of the key challenges for Towngas was the ageing of the population in Hong Kong and mainland China. We recognise the need to look ahead and build up our talent pool to ensure a smooth and orderly operation.

New Staff Development Initiatives

To help us identify the right people for the right positions, in 2018 we developed the unique Growth = Innovation x Implementation Profile Analysis system for human resources planning. Under the system, we will be able to determine the best match for our people and place them in the teams where their abilities can be put to best use. This Profile Analysis tool is now being fine-tuned and will be rolled out in mid-2019.

In 2017, we developed the Young TLC+ programme for staff across different departments and locations who have 5 to 10 years of work experience. The programme, which is based on our Towngas Leadership Competency (TLC) Model for identifying and grooming future leaders for management positions, admitted 19 young staff members. They are expected to graduate in 2019.

Over the past 10 years, we have also been organising executive development programmes in mainland China with Tsinghua University. In mid-2018, we developed a new training format, with top-rated professors and industry leaders from leading universities and businesses conduct sharing sessions with our managers, thereby deepening their understanding of the mainland market, political landscape and competitive environment.

In 2018, we introduced our revised signature Towngas Management Programme in mainland China, which utilises our long experience in the gas business, our own business cases and our stories, all of which are unique to our company. As a first step, we began by training the trainers who will implement the programme in their respective locations with real cases and local examples. Ultimately, we expect to cover a total of 27 management topics, adding to the four that have already been initiated.



Towngas and Vocational Training Council joined together to launch Hong Kong's first Professional Diploma in Gas Engineering, which enables working adults to enhance their competence in the field.

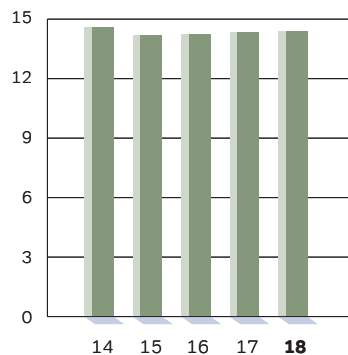
In addition to providing professional training to our employees and contractors in Hong Kong and mainland China, the Towngas Engineering Academy strives to disseminate gas engineering knowledge to relevant external groups, including working adults in the associated trades and students.

During the year, we worked with the Vocational Training Council (VTC) to introduce the Professional Diploma in Gas Engineering programme, the first diploma programme of its kind in Hong Kong. This part-time programme, which has been specially designed for working adults, gives equal emphasis to both theoretical and practical knowledge. Senior engineers and managers from Towngas will

act as lecturers, while learners will have the opportunity to gain practical work experience at the Towngas Engineering Academy. We also collaborated with the School of Energy and Environment at the City University of Hong Kong in September to launch a gas engineering academic unit as an undergraduate elective. Both the diploma and undergraduate programmes are designed not only to provide a talent pool for Towngas but to raise the standards and professionalism of the overall gas industry.

Town Gas Sales per Employee

Company (million MJ)



In 2018, we continued to promote our Three Courtesies programme, which since its launch in 2013 has become a key part of our internal corporate culture. This year, however, we began receiving requests from companies outside Towngas to teach their staff about this aspect of our culture. By spreading the messages contained in this campaign, Towngas can contribute to a more harmonious society.

Staff Health and Wellbeing

We make every effort to provide our employees with a work environment that is fair, equitable and fulfilling, while also acknowledging the importance of work-life balance.

We understand that many of our staff have family obligations, and therefore we provide flexible work arrangements for parents who have to attend their children's school activities during normal work hours. In addition, we set up a mother care room in support of our female employees who are breastfeeding after maternity leave.

We also regularly review and revise remuneration packages according to changes in social conditions and market trends. In 2018, for example, we enhanced our medical benefits and leave entitlement to give our employees better health protection and work-life balance.

For staff who must work during extreme weather conditions, we substantially increased their special allowance in recognition of the hardship they face and their support of the Company's corporate responsibility to serve the community. We especially appreciated those staff members who worked tirelessly during Typhoon Mangkhut in September to ensure there was no interruption to gas service.

As well as providing extensive training options for improving technical and professional skills, we offer non-business-related training such as talks and workshops for first-time parents, wellness and skincare. We also have a library, fitness facilities,

2018
Environmental Performance
Table (Hong Kong)

Water Quality



Total waste water output was 3.9 m³/TJ of town gas

Chemical Waste



Total chemical waste output was 0.5 kg/TJ of town gas

Greenhouse Gas Emissions



Greenhouse gas emissions from major gas production equipment was 347,489 metric tonnes in terms of CO₂ equivalent

Air Quality



Total NO_x output was 4 kg/TJ of town gas
Total SO_x output was 0.02 kg/TJ of town gas

Total CO₂ output was 11.7 metric tonnes/TJ of town gas

Ozone Layer Protection



All of our vehicle air conditioning systems now operate with refrigerant R134A

All BCF portable fire extinguishers have been replaced with dry powder extinguishers

Noise



All installations and operations complied with the statutory requirements

No noise abatement notice has ever been received

All legal requirements relating to environmental protection were fully complied with.



The Safety Walk in mainland China helped raise colleagues' awareness of safety and health.

Health



and a clinic where staff can enjoy free medical services and have their prescriptions filled.

The Towngas Recreation Club, which is especially popular with our staff for its wide range of sports and recreational activities, celebrated its 60th anniversary during the year.

In December 2018, we received the Family-Friendly Employers – Grand Award, recognising us as a multi-time winner of the Distinguished Family-Friendly Employer Award and for promoting innovative and creative family-friendly policies. We also won the 2017/18 Special Mentions (Gold) and 2017/18 Awards for Breastfeeding Support.

Occupational Health and Safety

In 2018, we undertook a wide range of activities to ensure the health and safety of our staff. The highlight of the year was our HSE (Health, Safety and Environment) Walk, which was held in Hong Kong for the first time with our project companies in mainland China, to raise awareness of the importance of workplace safety and health. On 23 June, over 150 mainland ventures joined the campaigns and more than 14,000 staff and their family members at different locations participated.

Another key milestone during the year was our completion of the migration process from OHSAS18001 to ISO45001, the enhanced occupational health

and safety (OHS) management system. Following the migration process, an ISO45001 certificate was presented to Towngas in January 2019.

Other events promoting good OHS performance included the Outstanding Safe Foreman Award and a forum for contractors. Moreover, over 1,500 employees took part in our HSE Month and HSE Quiz activity, held in November.

In our quarterly promotion, we highlighted the importance of eye protection, heat stress management, work stress management and infectious disease control, among other topics. Training sessions

were also organised for employees and contractors covering topics such as work-above-ground safety, first aid and emergencies, confined space and tunnelling work, behavioural-based safety observations and others.

During the year, we conducted a safety audit in July to meet the legislative requirements of the Factories and Industrial Undertakings (Safety Management) Regulation and carried out more than 150 safety inspections across the Company to ensure our high safety standards were being met.

Supplier Relationships

We work closely with our suppliers who are part of our green supply chain and help them to comply with our procurement policy.

In 2018, we conducted a Corporate Social Responsibility (CSR) audit of five selected suppliers, all of whom passed our requirements. We also invited 28 long-term partners to complete the CSR assessment form so that we could be certain their commitment to CSR was still on track.

In mainland China, over 90 per cent of our current major suppliers successfully implemented the 6S methodology for managing their production plants efficiently. In 2019, all new suppliers must achieve the 6S standard as one of the criteria for approval.



Creating Long-term Value for our Stakeholders

We are committed to looking beyond the short-term and creating long-term value for our stakeholders and the communities in which they live. This is at the heart of our business and our continuing success as a company.

Through the policies we have enacted and the practices we have implemented, we aim to set the highest possible standards of social and ethical behaviour for

our staff, contractors and industry peers, while doing the utmost to mitigate the impacts of our operations on the environment.

By committing to sustainable development, we believe we can create a better world for the communities we serve. In the years ahead, we will continue to live by this commitment and align our activities towards fulfilling our vision “to be Asia’s leading clean energy supplier and quality service provider, with a focus on innovation and environmental-friendliness.”

RISK FACTORS

In the risks discussed below, we highlight the factors that could have an adverse material effect on the Group's revenues, cash flows, market competitiveness and operations in Hong Kong and mainland China.

For further details on how the Group manages its risks, please refer to the "Risk Management and Internal Control" section of our Corporate Governance Report on pages 80 to 82.

Business Environment

In 2018, the global economy continued to strengthen despite heightened risk in the business environment. Key risks to economic growth include the build-up of trade tensions among major economies, increasing geopolitical tensions, greater uncertainty about the direction in which monetary policy adjustments in the developed economies are headed, and high and rising levels of debt in both developed and developing countries. Any of these factors have the potential to affect recent improvements in the global economy.

Hong Kong's economy remained robust in 2018, despite the China-US trade war. Visitor arrivals increased by 11.4 per cent, up from 3.2 per cent increase last year whilst hotel occupancy rates rose from 89 per cent last year to 91 per cent in 2018, causing gas sales in the hotel and restaurant trades to increase accordingly. In mainland China, the economy grew 6.6 per cent in 2018, lower than the 6.9 per cent in 2017. Driven by the strict environmental regulations and enforcement of the government's coal-to-gas policy, natural gas consumption grew significantly in 2018.

Business challenges faced by the Group include competition from the providers of electricity in Hong Kong and direct sales by upstream gas companies, as well as suppliers of liquefied natural gas (LNG) and alternative energy sources in mainland China. Other threats to our business include drops in oil prices and changes in government policy (political, legal, regulatory, environmental or competition-related) that could also affect our operations.

Our strategy for dealing with business risks continues to be critical for the sustainable growth and success of the Group. In line with this strategy, we remain prudent in our capital investments and seek ways to improve the productivity and cost effectiveness of all our operations. Credit monitoring is also reinforced to minimise the risk of a customer default.

In addition, we are constantly exploring new gas applications in both Hong Kong and mainland China, while maintaining close communication with our operational partners and governments whose support is essential for our business growth.

Reliability of Gas Supply

We secure multiple sources of feedstock for the production of town gas in our Hong Kong operations. These include natural gas transmitted from our LNG receiving terminal at Shenzhen to our gas production plant at Tai Po, naphtha imported from places such as Southeast Asia and Australia, and treated landfill gas obtained from our landfill project sites in Hong Kong.

A major risk of interruption to our feedstock supply for natural gas is inclement weather delaying LNG tankers. We have addressed this risk under our diversified production strategy, in which we have given our Tai Po plant the capability of switching between natural gas and naphtha for feedstock.

In mainland China, to facilitate more efficient gas inventory management and reduce supply bottlenecks during high-demand periods, we have built LNG storage facilities as well as new natural gas storage facility in underground salt caverns in Jiangsu province, which commenced operation in October 2018.

To ensure reliable gas transmission, we have a sophisticated Supervisory Control and Data Acquisition (SCADA) system to monitor and control our pressure-regulating stations and network. We also have a comprehensive staff training programme, asset management systems, and contingency plans with regular practice drills, in preparation for unforeseen events that might affect our customers and the public.

Production and Network Safety

Preventing gas leakages or explosions in our production and storage facilities, pipelines and networks is a top priority for Towngas. Risks include the possibility of damage to critical facilities or related infrastructure from a third party, a security threat or extreme weather events such as typhoons, flooding or landslides. These and other factors affecting the safety of our infrastructure or causing an interruption to service would have a significant legal, financial and/or reputational impact on the Group.

Towngas conducts regular reviews of all operating procedures to mitigate these risks, and implements targeted strategies for addressing them. Our Total Quality Management (TQM) system, for example, covers all critical production, storage, transmission and distribution facilities. We also manage our assets according to international standards and external certifications, and maintain insurance coverage against any property damage or financial loss.

Information Security

Our business operations are dependent on information technology systems that are vulnerable to a critical system failure, leakage or loss of sensitive information, all of which would adversely affect the Group's business. Accordingly, we have put in place protective measures to manage data loss and monitor suspicious cyber activities. We also commission third parties to assess our security standards and identify areas for enhancement. Other security measures include contingency plans with regular drills to counter system failures as well as staff awareness programmes on cybersecurity and sensitive information handling to fully safeguard our operations against growing information security threats.

Ethics and Integrity

Maintaining strong corporate governance standards and operating ethically are among management's top priority of concerns. Poor ethical behaviour by employees could damage our corporate reputation as well as adversely affect our long-established business relationships with stakeholders, including our customers and suppliers, which may have potential financial implications. In order to provide an ethical workplace with integrity, we have policies on the standards of behaviour we expect of our employees and provide them with regular training in these policies. We have also established formal channels for reporting suspected cases of fraud and encourage our business partners to follow the same ethical principles that we promote in our Anti-Fraud Policy.

Health and Safety

We recognise the importance of maintaining high levels of occupational health and safety in all our operations. Serious accidents or the outbreak of a communicable disease, among other risks, could cause injury, loss of life and operational disruption that would result in huge recovery costs, litigation or reputational damage.

To mitigate and contain the risks directly or indirectly under our control, we encourage staff at all levels to monitor and report any hazards or potential threats. We also have comprehensive safety guidelines and measures that ensure our safety performance conforms to the highest industry standards. Our safety management system, certified for compliance with international standards, is reviewed and updated regularly. We also emphasise the importance of maintaining a comprehensive and effective safety culture by providing staff and contractors with systematic professional, technical and safety-related training.

FINANCIAL RESOURCES REVIEW

Liquidity and Capital Resources

As at 31st December 2018, the Group had a net current borrowings position of HK\$1,573 million (31st December 2017: HK\$2,927 million) and long-term borrowings of HK\$27,609 million (31st December 2017: HK\$21,162 million). In addition, banking facilities available for use amounted to HK\$13,300 million (31st December 2017: HK\$13,200 million).

The operating and capital expenditures of the Group are funded by cash flow from operations, internal liquidity, banking facilities, debt and equity financing. The Group has adequate and stable sources of funds and unutilised banking facilities to meet its future capital expenditures and working capital requirements.

Financing Structure

In May 2009, the Group established a US\$1 billion Medium Term Note Programme (the "Programme") which gives the Group the flexibility to issue notes at favourable terms and timing. In May 2012, the Programme was updated with the size increased to US\$2 billion. Up to 31st December 2018, the Group issued notes in the total amount of HK\$14,398 million (31st December 2017: HK\$13,371 million) with maturity terms of 3 years, 10 years, 12 years, 15 years, 30 years and 40 years in Renminbi, Australian dollar, Japanese yen and Hong Kong dollar under the Programme (the "MTNs"). The carrying value of the issued MTNs as at 31st December 2018 was HK\$13,708 million (31st December 2017: HK\$12,748 million).

As at 31st December 2017, the outstanding principal amount of the 10-year US dollar Guaranteed Notes (the "Guaranteed Notes") issued in August 2008 at a fixed coupon rate of 6.25 per cent per annum was US\$995 million and the carrying value was HK\$7,734 million. The Guaranteed Notes were matured and fully repaid in August 2018.

In January 2014, the Group issued its first Perpetual Subordinated Guaranteed Capital Securities (the "Perpetual Capital Securities") amounting to US\$300 million with distribution rate of 4.75 per cent per annum for the first five years and thereafter at floating distribution rate. With no fixed maturity and the distribution payment can be deferred at the discretion of the Group, the Perpetual Capital Securities are redeemable at the Group's option on or

after 28th January 2019 and were accounted for as equity in the financial statements up to serving of the redemption notice in December 2018. The Perpetual Capital Securities were guaranteed by the Company. The issuance helps strengthen the Group's financial position, improve its financing maturity profile and diversify its funding sources. On 17th December 2018, a redemption notice was issued that the issuer would redeem all of the Perpetual Capital Securities on 28th January 2019 (the "First Call Date") at their principal amount together with any distribution accrued to the First Call Date. In such case, the Perpetual Capital Securities at carrying value of HK\$2,350 million are reclassified to Redeemable Perpetual Securities under current liabilities as at 31st December 2018.

As at 31st December 2018, the Group's borrowings (including Redeemable Perpetual Securities) amounted to HK\$38,022 million (31st December 2017: HK\$36,919 million). While the notes and the Redeemable Perpetual Securities mentioned above together with the bank and other loans of HK\$3,624 million (31st December 2017: HK\$4,003 million) had fixed interest rate and were unsecured, the remaining bank and other loans were unsecured and had a floating interest rate, of which HK\$12,453 million (31st December 2017: HK\$6,363 million) were long-term bank loans and HK\$5,887 million (31st December 2017: HK\$6,071 million) had maturities within one year on revolving credit or term loan facilities. As at 31st December 2018, the maturity profile of the Group's borrowings was 27 per cent within 1 year, 5 per cent within 1 to 2 years, 44 per cent within 2 to 5 years and 24 per cent over 5 years (31st December 2017: 43 per cent within 1 year, 11 per cent within 1 to 2 years, 21 per cent within 2 to 5 years and 25 per cent over 5 years).

The RMB Note, AUD Note and JPY Note issued are hedged to Hong Kong dollars by currency swaps. Except for some borrowings of certain subsidiaries are arranged in or hedged to their functional currency in Renminbi, the Group's borrowings are primarily denominated in Hong Kong dollars and local currency of subsidiaries in mainland China. The Group therefore has no significant exposure to foreign exchange risk.

The gearing ratio [net borrowing less Redeemable Perpetual Securities / (shareholders' funds + Perpetual Capital Securities + net borrowing)] for the Group as at 31st December 2018 remained healthy at 29 per cent (31st December 2017: 28 per cent).

In February 2019, the Group issued new perpetual capital securities and the proceeds are mainly used to refinance the Redeemable Perpetual Securities redeemed in January 2019 as mentioned above. The newly issued US\$300 million perpetual capital securities are able to keep a distribution rate of 4.75 per cent per annum for the first five years and thereafter at fixed distribution rate. With no fixed maturity and the distribution payment can be deferred at the discretion of the Group, these perpetual capital securities are redeemable at the Group's option on or after 12th February 2024 and are accounted for as equity in the financial statements.

Contingent Liabilities

As at 31st December 2018 and 31st December 2017, the Group did not provide any guarantee in respect of bank borrowing facilities made available to any associates, joint ventures or third parties.

Currency Profile

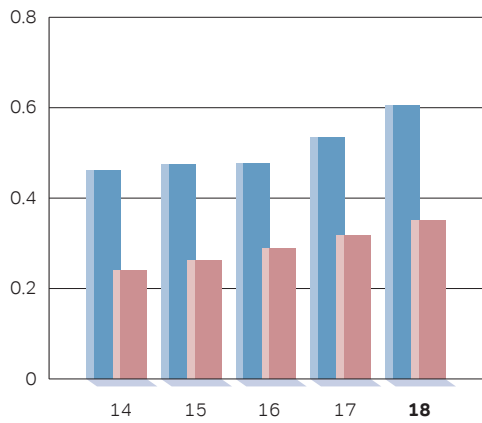
The Group's operations and activities are predominantly based in Hong Kong and mainland China. As such, its cash, cash equivalents or borrowings are mainly denominated in Hong Kong dollars, Renminbi or United States dollars, whereas borrowings for the Group's subsidiaries, associates and joint ventures in mainland China are predominantly denominated in the local currency, Renminbi, in order to provide natural hedging for the investment there.

Group's Financial Investments in Securities

Under the guidance of the Group's Treasury Committee, financial investments have been made in equity and debt securities. As at 31st December 2018, the relevant investments in securities amounted to HK\$812 million (31st December 2017: HK\$752 million). The performance of the Group's financial investments in securities was satisfactory.

FIVE-YEAR FINANCIAL STATISTICS

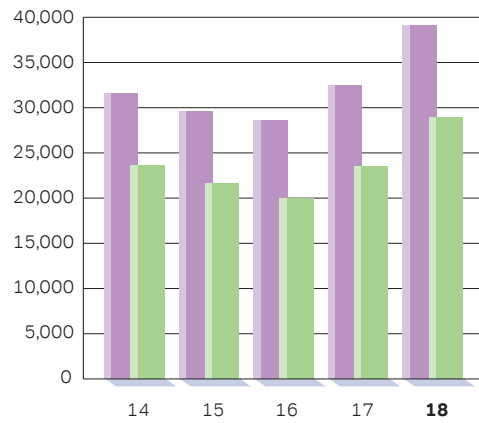
Earnings and Dividends per Share (HK\$)



■ Earnings per Share
■ Dividends per Share

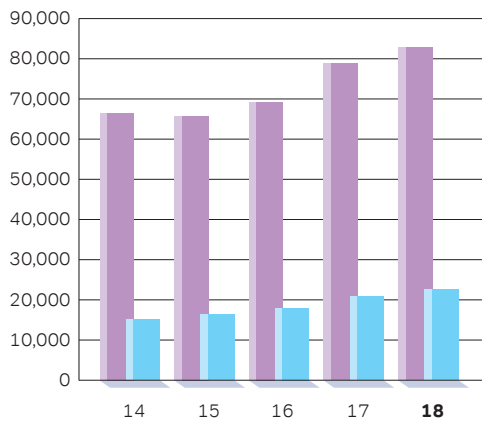
Revenue and Gas Sales (HK\$ million)

(HK\$ million)



■ Revenue
■ Gas Sales

Property, Plant, Equipment and Leasehold Land (HK\$ million)



■ Property, Plant, Equipment and Leasehold Land
■ Accumulated Depreciation and Amortisation

Capital Expenditures (HK\$ million)

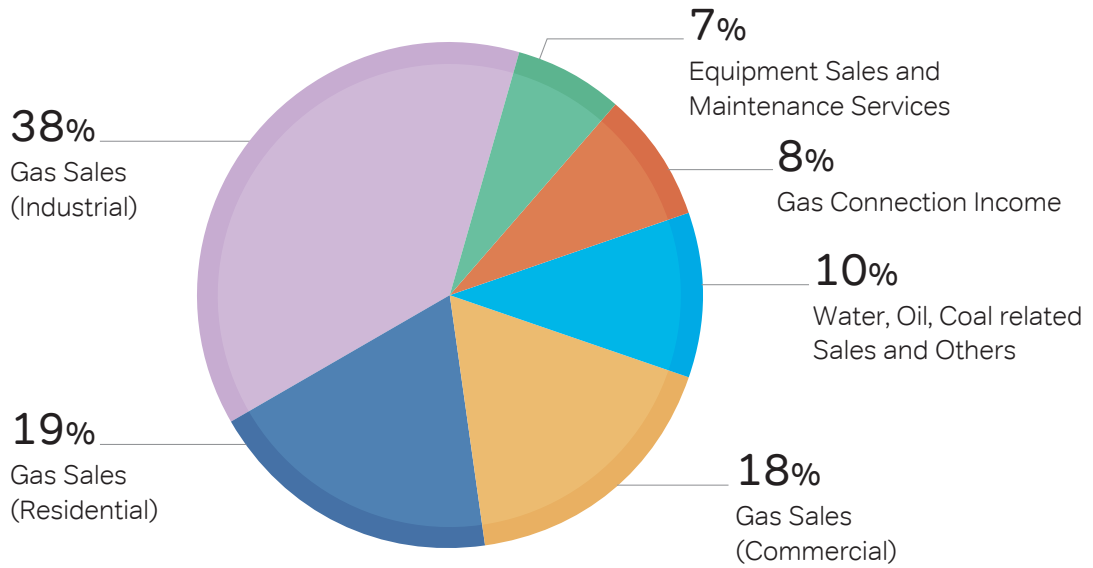
(HK\$ million)



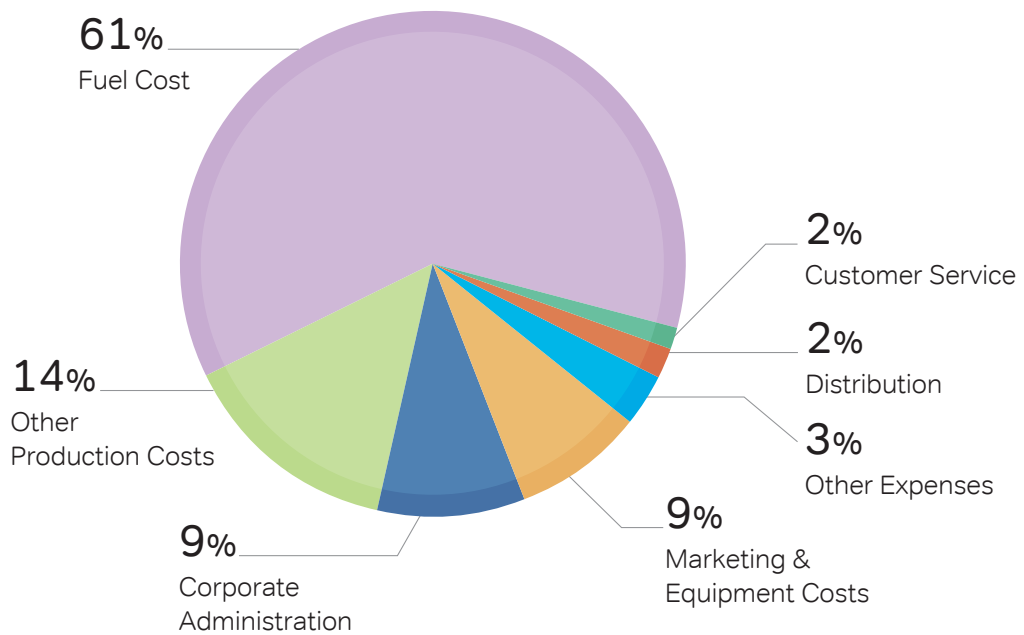
■ Capital Expenditures
■ Depreciation and Amortisation

2018 FINANCIAL ANALYSIS

Analysis of Revenue



Analysis of Expenditures



COMPARISON OF TEN-YEAR RESULTS

	2018	2017	2016
Highlights (Company)			
Number of Customers as at 31st December	1,908,511	1,883,407	1,859,414
Town Gas Sales, million MJ	29,550	29,049	28,814
Installed Capacity, thousand m ³ per day	12,596	12,596	12,596
Maximum Daily Demand, thousand m ³	7,255	6,191	6,964
Revenue and Profit			
	HK\$'M	HK\$'M	HK\$'M
Revenue	39,073.0	32,476.5	28,557.1
Profit before Taxation	12,339.5	11,096.7	9,845.7
Taxation	(1,907.6)	(1,749.8)	(1,575.9)
Profit after Taxation	10,431.9	9,346.9	8,269.8
Holders of Perpetual Capital Securities	(107.4)	(111.2)	(110.5)
Non-controlling Interests	(1,011.7)	(1,010.4)	(818.6)
Profit Attributable to Shareholders	9,312.8	8,225.3	7,340.7
Dividends	5,385.3	4,895.7	4,450.9
Assets and Liabilities			
Property, Plant, Equipment and Leasehold Land	60,193.3	58,056.7	51,226.2
Investment Property	778.0	764.0	729.0
Intangible Assets	5,682.1	5,883.6	5,572.4
Associates	26,314.1	23,393.4	20,485.0
Joint Ventures	10,950.3	10,889.2	9,226.5
Financial Assets *	4,633.7	4,289.9	4,967.1
Other Non-current Assets	3,529.4	3,419.3	3,366.3
Current Assets	20,612.2	24,365.8	21,170.9
Current Liabilities	(26,150.9)	(31,948.1)	(19,547.5)
Non-current Liabilities	(36,348.9)	(28,867.9)	(34,297.9)
Net Assets	70,193.3	70,245.9	62,898.0
Capital and Reserves			
Share Capital	5,474.7	5,474.7	5,474.7
Share Premium	–	–	–
Reserves	53,387.1	51,746.9	45,532.6
Proposed Dividend	3,538.9	3,217.2	2,924.9
Shareholders' Funds	62,400.7	60,438.8	53,932.2
Perpetual Capital Securities	–	2,354.1	2,353.8
Non-controlling Interests	7,792.6	7,453.0	6,612.0
Total Equity	70,193.3	70,245.9	62,898.0
Earnings per Share, HK Dollar #	0.61	0.54	0.48
Dividends per Share, HK Dollar #	0.35	0.32	0.29
Dividend Cover	1.73	1.68	1.65

* Financial assets include available-for-sale financial assets, financial assets at fair value through other comprehensive income and financial assets at fair value through profit or loss

Adjusted for the bonus share issue in 2018

	2015	2014	2013	2012	2011	2010	2009
	1,839,261	1,819,935	1,798,731	1,776,360	1,750,553	1,724,316	1,698,723
	28,404	28,835	28,556	28,360	28,147	27,578	27,274
	12,596	12,260	12,260	12,260	12,260	12,260	12,260
	6,172	6,571	6,283	6,403	6,742	6,191	6,621
	HK\$'M	HK\$'M	HK\$'M	HK\$'M	HK\$'M	HK\$'M	HK\$'M
	29,591.3	31,614.7	28,245.9	24,922.5	22,426.8	19,375.4	12,351.8
	9,906.0	9,874.6	9,410.8	9,885.6	8,068.7	7,086.7	6,159.9
	(1,726.7)	(1,771.4)	(1,655.2)	(1,484.6)	(1,344.0)	(1,038.8)	(750.6)
	8,179.3	8,103.2	7,755.6	8,401.0	6,724.7	6,047.9	5,409.3
	(110.5)	(102.2)	-	-	-	-	-
	(766.8)	(891.8)	(901.8)	(688.9)	(575.1)	(463.1)	(134.2)
	7,302.0	7,109.2	6,853.8	7,712.1	6,149.6	5,584.8	5,275.1
	4,046.6	3,679.7	3,345.9	3,041.7	4,147.8	2,513.8	2,285.3
	49,417.5	51,353.6	47,002.3	41,914.1	33,606.3	27,825.8	24,452.6
	713.0	683.0	646.0	540.0	518.0	501.0	501.0
	5,819.5	5,858.5	5,253.3	3,845.4	3,434.8	2,575.6	2,461.7
	19,591.9	17,572.5	17,015.1	16,307.1	12,706.8	10,802.2	9,304.0
	9,288.2	9,033.8	8,939.0	9,103.6	8,964.7	7,768.8	7,011.2
	4,567.0	2,599.7	2,937.3	3,078.6	3,110.6	3,441.2	2,996.0
	2,533.3	2,668.3	2,913.5	2,710.6	2,734.5	2,791.9	722.7
	23,632.9	24,641.5	21,688.7	21,437.8	19,955.1	16,957.6	19,622.3
	(23,180.6)	(20,689.6)	(19,261.8)	(17,252.9)	(13,403.4)	(16,523.4)	(10,628.8)
	(30,269.8)	(31,497.6)	(30,762.9)	(31,334.1)	(25,353.3)	(14,932.1)	(18,635.4)
	62,112.9	62,223.7	56,370.5	50,350.2	46,274.1	41,208.6	37,807.3
	5,474.7	5,474.7	2,389.9	2,172.6	1,975.1	1,795.6	1,632.3
	-	-	2,861.0	3,078.3	3,275.8	3,455.3	3,618.6
	44,707.7	44,735.7	42,418.0	37,952.1	33,075.4	30,561.3	27,112.3
	2,659.0	2,417.8	2,198.7	1,998.8	3,199.7	1,651.9	1,501.8
	52,841.4	52,628.2	49,867.6	45,201.8	41,526.0	37,464.1	33,865.0
	2,353.8	2,353.8	-	-	-	-	-
	6,917.7	7,241.7	6,502.9	5,148.4	4,748.1	3,744.5	3,942.3
	62,112.9	62,223.7	56,370.5	50,350.2	46,274.1	41,208.6	37,807.3
	0.47	0.46	0.45	0.50	0.40	0.36	0.34
	0.26	0.24	0.22	0.20	0.27	0.16	0.15
	1.80	1.93	2.05	2.54	1.48	2.22	2.31

REPORT OF THE DIRECTORS

The Directors have pleasure in submitting to shareholders their Report and the audited financial statements for the year ended 31st December 2018 which are to be presented at the Annual General Meeting to be held at Meeting Room N101 (Expo Drive Entrance), Hong Kong Convention and Exhibition Centre, Wanchai, Hong Kong on Tuesday, 28th May 2019.

Principal Activities

The principal activities of the Company and its subsidiaries (collectively, the “Group”) are the production, distribution and marketing of gas, water supply and emerging environmentally-friendly energy businesses in Hong Kong and mainland China. Particulars of the principal subsidiaries of the Company are shown from pages 181 to 191 of this Annual Report. Revenue and contribution to operating profit are mainly derived from activities carried out in Hong Kong and mainland China.

Results and Appropriations

The results of the Group for the year ended 31st December 2018 are set out in the consolidated income statement and the consolidated statement of comprehensive income on pages 91 and 92 of this Annual Report respectively.

An interim dividend of HK12 cents per share was paid to shareholders on 2nd October 2018 and the Directors recommend a final dividend of HK23 cents per share payable on 13th June 2019 to shareholders whose names are on the register of members of the Company on 5th June 2019.

Bonus Issue of Shares

The Directors recommend a bonus issue of shares on the basis of one bonus share for every ten existing shares held by shareholders whose names are on the register of members of the Company on 5th June 2019. The bonus issue is subject to the conditions and trading arrangements set out in the circular despatched together with this Annual Report.

Business Review

A review of the business of the Group during the year, particulars of important events affecting the Group that have occurred since the end of the year ended 31st December 2018 (if any), an analysis of the Group’s performance using financial key performance indicators and a discussion on the Group’s future business development are provided from pages 4 to 65 of this Annual Report. Description of the possible risks and uncertainties that the Group may be facing are set out on page 60. The financial risk management of the Group can be found in Note 3 to the consolidated financial statements. In addition, discussions on the Group’s relationships with its key stakeholders, environmental policies and performance, and compliance with relevant laws and regulations which have a significant impact on the Group can be found from pages 22 to 59 and pages 72 to 84.

Financial Summary

A summary of the results and of the assets and liabilities of the Group for the last nine financial years is set out on pages 64 and 65 of this Annual Report.

Distributable Reserves

The distributable reserves of the Company as at 31st December 2018 amounted to HK\$14,819,000,000 (2017: HK\$14,730,000,000) before the proposed final dividend for the year ended 31st December 2018.

Shares Issued

During the year, the Company issued 1,398,764,648 bonus shares without consideration on the basis of one bonus share for every ten shares held. The reason for the issue of bonus share was to enable the shareholders to enjoy a pro-rata increase in the number of shares being held in the Company without incurring any costs.

Details of the shares issued by the Company during the year are set out in Note 35 to the consolidated financial statements.

Charitable Donations

During the year, the Group made charitable donations amounting to approximately HK\$4,800,000 (2017: HK\$5,100,000).

Directors

The Directors of the Company during the year and up to the date of this report were:

Non-executive Directors

Dr. the Hon. Lee Shau-kee (Chairman)
 Dr. Colin Lam Ko-yin
 Dr. Lee Ka-kit
 Mr. Lee Ka-shing

Independent Non-executive Directors

Mr. Leung Hay-man (*passed away on 11th October 2018*)
 Dr. the Hon. Sir David Li Kwok-po
 Prof. Poon Chung-kwong
 Dr. Moses Cheng Mo-chi (*appointed on 14th January 2019*)

Executive Directors

Mr. Alfred Chan Wing-kin
 Mr. Peter Wong Wai-yee

At the Annual General Meeting held on 6th June 2018, Dr. the Hon. Lee Shau-kee, Prof. Poon Chung-kwong and Mr. Alfred Chan Wing-kin were re-elected as Directors of the Company. Dr. Colin Lam Ko-yin, Dr. the Hon. Sir David Li Kwok-po, Dr. Lee Ka-kit, Mr. Lee Ka-shing and Mr. Peter Wong Wai-yee held office throughout the year. Mr. Leung Hay-man passed away on 11th October 2018. Dr. Moses Cheng Mo-chi was appointed as Independent Non-executive Director on 14th January 2019.

According to the Articles of Association of the Company (the "Articles of Association"), one-third of all the directors are subject to retirement by rotation at every annual general meeting. Pursuant to Article 97 of the Articles of Association, Dr. Colin Lam Ko-yin, Mr. Lee Ka-shing and Mr. Peter Wong Wai-yee are due to retire by rotation at the forthcoming Annual General Meeting and, being eligible, offer themselves for re-appointment. Pursuant to Article 91 of the Articles of Association, Dr. Moses Cheng Mo-chi, Independent Non-executive Director, is also due to retire at the forthcoming Annual General Meeting and, being eligible, offer himself for re-appointment. Details of these directors proposed for re-election are set out in the circular sent together with this Annual Report.

A list of directors who have served on the boards of the subsidiaries of the Company during the year and up to the date of this report is available on the Company's website at www.towngas.com under the "Investor Relations" section.

Biographical Details of Directors

The biographical details of Directors and senior management who are also executive directors are set out from pages 17 to 20 of this Annual Report.

Disclosure of Interests

A. Directors

As at 31st December 2018, the interests and short positions of each Director of the Company in the shares, underlying shares and debentures of the Company and its associated corporations (within the meaning of Part XV of the Securities and Futures Ordinance (the “SFO”)) as 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 of Hong Kong Limited (the “Exchange”) pursuant to the Model Code for Securities Transactions by Directors of Listed Issuers were as follows:

Shares and Underlying Shares (Long Positions)

Name of Company	Name of Director	Interest in Shares			Aggregate Interests	%*
		Personal Interests	Corporate Interests	Other Interests		
The Hong Kong and China Gas Company Limited	Dr. the Hon. Lee Shau-kee		6,389,357,019 (Note 3)		6,389,357,019	41.53
	Dr. the Hon. Sir David Li Kwok-po	45,514,645			45,514,645	0.30
	Dr. Lee Ka-kit			6,389,357,019 (Note 2)	6,389,357,019	41.53
	Mr. Alfred Chan Wing-kin	293,361 (Note 5)			293,361	0.00
	Mr. Lee Ka-shing			6,389,357,019 (Note 2)	6,389,357,019	41.53
	Prof. Poon Chung-kwong	200,442 (Note 4)			200,442	0.00
Lane Success Development Limited	Dr. the Hon. Lee Shau-kee		9,500 (Note 6)		9,500	95
	Dr. Lee Ka-kit			9,500 (Note 6)	9,500	95
	Mr. Lee Ka-shing			9,500 (Note 6)	9,500	95
Yieldway International Limited	Dr. the Hon. Lee Shau-kee		2 (Note 7)		2	100
	Dr. Lee Ka-kit			2 (Note 7)	2	100
	Mr. Lee Ka-shing			2 (Note 7)	2	100
Towngas China Company Limited (“Towngas China”)	Dr. the Hon. Lee Shau-kee		1,895,264,270 (Note 8)		1,895,264,270	67.45
	Dr. Lee Ka-kit			1,895,264,270 (Note 8)	1,895,264,270	67.45
	Mr. Lee Ka-shing			1,895,264,270 (Note 8)	1,895,264,270	67.45
	Mr. Alfred Chan Wing-kin	3,782,569			3,782,569	0.13
	Mr. Peter Wong Wai-yee	3,075,000			3,075,000	0.11

* Percentage which the aggregate long position in the shares or underlying shares represents to the number of issued shares of the Company or any of its associated corporations.

Disclosure of Interests (Continued)

A. Directors (Continued)

Save as mentioned above, as at 31st December 2018, there were no other interests or short positions of the Directors of the Company in any shares, underlying shares or debentures of the Company or any of its associated corporations (within the meaning of Part XV of the SFO) recorded in the register maintained by the Company pursuant to section 352 of the SFO or as otherwise notified to the Company and the Exchange pursuant to the Model Code for Securities Transactions by Directors of Listed Issuers.

B. Substantial Shareholders and Others (Long Positions)

As at 31st December 2018, the interests and short positions of every person, other than the Directors of the Company, in the shares and underlying shares of the Company as recorded in the register required to be kept under section 336 of the SFO were as follows:

	Name of Company	No. of Shares in which Interested	%*
Substantial Shareholders (a person who is entitled to exercise, or control the exercise of, 10% or more of the voting power at any general meeting)	Disralei Investment Limited (Note 1)	3,556,972,015	23.12
	Timpani Investments Limited (Note 1)	4,938,522,441	32.10
	Faxson Investment Limited (Note 1)	6,389,357,019	41.53
	Henderson Land Development Company Limited (Note 1)	6,389,357,019	41.53
	Henderson Development Limited (Note 1)	6,389,357,019	41.53
	Hopkins (Cayman) Limited (Note 2)	6,389,357,019	41.53
	Riddick (Cayman) Limited (Note 2)	6,389,357,019	41.53
	Rimmer (Cayman) Limited (Note 2)	6,389,357,019	41.53
Persons other than Substantial Shareholders	Macrostar Investment Limited (Note 1)	1,450,834,578	9.43
	Chelco Investment Limited (Note 1)	1,450,834,578	9.43
	Medley Investment Limited (Note 1)	1,381,550,426	8.98

* Percentage which the aggregate long position in the shares represents to the number of issued shares of the Company.

Save as mentioned above, as at 31st December 2018, the register maintained by the Company pursuant to section 336 of the SFO recorded no other interests or short positions in shares and underlying shares of the Company.

Notes:

- These 6,389,357,019 shares were beneficially owned by Macrostar Investment Limited ("Macrostar"), Medley Investment Limited ("Medley") and Disralei Investment Limited ("Disralei"). Macrostar was a wholly-owned subsidiary of Chelco Investment Limited, which was in turn, a wholly-owned subsidiary of Faxson Investment Limited ("FIL"). Medley and Disralei were wholly-owned subsidiaries of Timpani Investments Limited, which was in turn, a wholly-owned subsidiary of FIL. FIL was a wholly-owned subsidiary of Henderson Land Development Company Limited ("HLD"). Henderson Development Limited ("HD") was entitled to exercise or control the exercise of more than one-third of the voting power at general meetings of HLD.
- These 6,389,357,019 shares are duplicated in the interests described in Note 1. Hopkins (Cayman) Limited ("Hopkins") owned all the issued ordinary shares which carry the voting rights in the share capital of HD as trustee of a unit trust ("Unit Trust"). Rimmer (Cayman) Limited ("Rimmer") and Riddick (Cayman) Limited ("Riddick"), as trustees of the respective discretionary trusts, held units in the Unit Trust. Dr. Lee Ka-kit and Mr. Lee Ka-shing, as discretionary beneficiaries of the discretionary trusts, were taken to have duties of disclosure in relation to these shares by virtue of Part XV of the SFO.
- These 6,389,357,019 shares are duplicated in the interests described in Notes 1 and 2. Dr. the Hon. Lee Shau-kee beneficially owned all the issued shares in Rimmer, Riddick and Hopkins and was taken to be interested in these shares by virtue of Part XV of the SFO.
- These 200,442 shares were jointly held by Prof. Poon Chung-kwong and his spouse.
- These 293,361 shares were jointly held by Mr. Alfred Chan Wing-kin and his spouse.
- These 9,500 shares in Lane Success Development Limited were beneficially owned by a wholly-owned subsidiary of the Company (as to 4,500 shares) and a wholly-owned subsidiary of HLD (as to 5,000 shares). Dr. the Hon. Lee Shau-kee, Dr. Lee Ka-kit and Mr. Lee Ka-shing were taken to be interested in HLD and the Company as set out in Notes 1 to 3 by virtue of Part XV of the SFO.

Disclosure of Interests (Continued)

B. Substantial Shareholders and Others (Long Positions) (Continued)

Notes: (Continued)

7. These 2 shares in Yieldway International Limited were beneficially owned by a wholly-owned subsidiary of the Company (as to 1 share) and a wholly-owned subsidiary of HLD (as to 1 share). Dr. the Hon. Lee Shau-kee, Dr. Lee Ka-kit and Mr. Lee Ka-shing were taken to be interested in HLD and the Company as set out in Notes 1 to 3 by virtue of Part XV of the SFO.
8. These 1,895,264,270 shares in Towngas China representing approximately 67.45% of the total issued shares in Towngas China were beneficially owned by Hong Kong & China Gas (China) Limited (as to 1,732,005,573 shares), Planwise Properties Limited (as to 160,527,180 shares) and Superfun Enterprises Limited (as to 2,731,517 shares), wholly-owned subsidiaries of the Company. Dr. the Hon. Lee Shau-kee, Dr. Lee Ka-kit and Mr. Lee Ka-shing were taken to be interested in the Company as set out in Notes 1 to 3 by virtue of Part XV of the SFO.

Equity-Linked Agreements

No equity-linked agreements were entered into by the Company during the year or subsisted at the end of the year.

Arrangements to Purchase Shares or Debentures

At no time during the year was the Company or any of its subsidiaries a party to any arrangement to enable the Directors of the Company to acquire benefits by means of the acquisition of shares in, or debentures of, the Company or any other body corporate.

Directors' Interests in Competing Businesses

Pursuant to Rule 8.10 of the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (the "Listing Rules"), the interests of Directors of the Company in businesses which might compete with the Group during the year ended 31st December 2018 and as at 31st December 2018 were as follows:

Mr. Alfred Chan Wing-kin and Mr. Peter Wong Wai-ye, Directors of the Company, have held directorships in companies engaged in the same businesses of production, distribution and marketing of gas in mainland China as the Group. Although some of the businesses carried out by those companies are similar to the businesses carried out by the Group, they are of different scale and/or at different locations, and the Group, has been operating independently of, and at arm's length from, the businesses of those companies. Therefore, the Board is of the view that the businesses of those companies did not compete with the businesses of the Group.

Service Contracts

None of the Directors who are proposed for re-election at the forthcoming Annual General Meeting has a service contract with the Company which is not determinable within one year without payment of compensation, other than statutory compensation.

Connected Transactions

During the year, there were no connected transactions and continuing connected transactions which were required to be disclosed in accordance with the requirements of the Listing Rules.

None of the related party transactions as set out in Note 40 to the consolidated financial statements constituted a connected transaction or a continuing connected transaction which was subject to the disclosure requirements under Chapter 14A of the Listing Rules.

Directors' Material Interests in Transactions, Arrangements or Contracts

No transactions, arrangements or contracts of significance in relation to the Group's business to which the Company or any of its subsidiaries was a party, and in which a Director of the Company and the Director's connected entity had a material interest, whether directly or indirectly, subsisted at the end of the year or at any time during the year.

Management Contracts

No contracts (as defined in section 543 of the Companies Ordinance, Chapter 622 of the Laws of Hong Kong (the “Companies Ordinance”)) 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.

Purchase, Sale or Redemption of the Company’s Listed Securities

Neither the Company nor any of its subsidiaries had purchased, sold or redeemed any of the Company’s listed securities during the year.

Permitted Indemnity

Pursuant to the Articles of Association, subject to the provisions of the Companies Ordinance, every Director or other officer of the Company shall be indemnified out of the assets of the Company against any liability incurred by him as a director or other officer of the Company in defending any proceedings (whether civil or criminal) in which judgement is given in his favour or he is acquitted or in connection with any application under the Companies Ordinance in which relief is granted to him by the court.

In addition, the indemnity agreements made by the Company, which are currently in force and were in force throughout the financial year, contained permitted indemnity provisions (as permitted under the Companies Ordinance), for the benefit of the Directors of the Company. The Company has maintained appropriate directors’ and officers’ liability insurance coverage for the Directors and officers of the Group.

Major Customers and Suppliers

During the year, both the percentages of the purchases attributable to the Group’s five largest suppliers combined and the percentage of the turnover attributable to the Group’s five largest customers combined were less than 30 per cent of the total purchases and turnover of the Group respectively.

Corporate Governance

The Company’s corporate governance principles and practices are set out in the Corporate Governance Report from pages 72 to 84 of this Annual Report.

Public Float

As at the date of this report, being also the latest practicable date prior to the issue of this Annual Report, the Company has maintained the prescribed public float under the Listing Rules, based on the information that is publicly available to the Company and within the knowledge of the Directors.

Auditor

The financial statements have been audited by PricewaterhouseCoopers who will retire at the forthcoming Annual General Meeting and, being eligible, offer themselves for re-appointment at a fee to be agreed by the Board.

On behalf of the Board

Lee Shau-kee

Chairman

Hong Kong, 20th March 2019

CORPORATE GOVERNANCE REPORT

The Board of Directors of the Company (the “Board”) is committed to maintaining good corporate governance. The Board believes that good corporate governance principles and practices should emphasise accountability and an increase in transparency which will enable the Group’s stakeholders, including shareholders, investors, customers, suppliers, employees and the community to have trust and faith in the Group to take care of their needs and to fulfill its social responsibility.

Corporate Governance Practices

During the year ended 31st December 2018, the Company complied with all the code provisions as set out in the Corporate Governance Code contained in Appendix 14 to the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (the “Listing Rules”).

The below sets out the corporate governance principles and practices adopted by the Group which indicate how the Group has applied relevant principles in the Corporate Governance Code.

Board of Directors

Responsibilities of Directors

The Board is ultimately accountable for the Group’s activities, strategies and financial performance, which includes formulating business development strategies, directing and supervising the Group’s affairs, reviewing the financial statements and budget proposal of the Group, approving interim reports, annual reports and announcements of interim results and annual results, considering dividend policy, reviewing the effectiveness of the risk management and internal control systems and so on.

The day-to-day management, administration and operation of the Group are delegated to the management team. The Board gives clear directions to the management team as to their powers of management, and circumstances in which the management team should report back.

Newly appointed Directors will be arranged a comprehensive, formal and tailored induction which includes provision of key guidelines, documents and publications relevant to their roles, responsibilities and ongoing obligations; a briefing on the Group’s structure, businesses, risk management and other governance practices and meeting with other fellow Directors so as to help the newly appointed Directors familiarise with the management, business and governance policies and practices of the Company, and ensure that they have a proper understanding of the operations and businesses of the Group.

To ensure that Directors’ contribution to the Board/committees remains informed, continuous professional development are provided for Directors to develop and refresh their knowledge, skills and understanding of the business and markets in which the Group operates. Directors are also provided with monthly updates of the Group’s development, and information such as performance and key operational highlights to enable the Board as a whole and each Director to discharge their duties.

All Directors have participated in appropriate continuous professional development and provided the Company with their records of training they received for the year ended 31st December 2018.

During the year ended 31st December 2018, all Directors participated in the training which included reading regulatory updates or information relevant to the Group or its business and attending or giving talks at seminars and/or conferences.

Board of Directors (Continued)

Responsibilities of Directors (Continued)

Directors	Training
Non-executive Directors	
Dr. the Hon. Lee Shau-kee (Chairman)	✓
Dr. Colin Lam Ko-yin	✓
Dr. Lee Ka-kit	✓
Mr. Lee Ka-shing	✓
Independent Non-executive Directors	
Mr. Leung Hay-man*	✓
Dr. the Hon. Sir David Li Kwok-po	✓
Prof. Poon Chung-kwong	✓
Executive Directors	
Mr. Alfred Chan Wing-kin	✓
Mr. Peter Wong Wai-yee	✓

* Mr. Leung Hay-man passed away on 11th October 2018.

Every Director ensures that he gives sufficient time and attention to the affairs of the Company. Each Director shall disclose to the Company at the time of his appointment the directorships held in other listed companies or nature of offices held in public organisations and other significant commitment. The Company has also requested the Directors to provide in a timely manner any change on such information. Each Director is also required to disclose to the Company their time commitment.

Appropriate insurance cover on Directors' liabilities has been in force to protect the Directors of the Group from risks arising from the businesses of the Group.

Corporate Governance Functions

The Board has undertaken the following corporate governance functions:

- to develop and review the Company's policies and practices on corporate governance and make recommendations to the Company;
- to review and monitor the training and continuous professional development of Directors and senior management;
- to review and monitor the Company's policies and practices on compliance with legal and regulatory requirements;
- to develop, review and monitor the code of conduct and compliance manual (if any) applicable to employees and Directors; and
- to review the Company's compliance with the code provision of Appendix 14 to the Listing Rules and disclosure in the Corporate Governance Report.

During the year ended 31st December 2018, the Board reviewed the Company's policies and practices on corporate governance and the disclosure in the Corporate Governance Report. The Board also adopted in August 2018 an Anti-Fraud Policy which aims to promote an ethical culture, facilitate the continuous control's enhancement to detect and prevent fraud, and to foster consistent organisational behaviour. The Anti-Fraud Policy applies to all employees, including directors and staff at all levels, of the Company and its subsidiaries, joint ventures or companies in which the Company holds a controlling interest. All of the business partners, including joint venture partners, associated companies, agents, consultants, contractors and suppliers are encouraged to follow the principles of the Anti-Fraud Policy.

Board of Directors (Continued)

Board Diversity Policy

The Board adopted the Board Diversity Policy setting out the approach to achieve diversity on the Board. The Company recognises and embraces the benefits of having a diverse Board to enhance the quality of its performance. In designing the Board's composition, Board diversity has been considered from a number of aspects, including but not limited to professional experience, skills, knowledge, cultural and educational background, ethnicity, age and gender. All Board appointments will be based on meritocracy, and candidates will be considered against selection criteria, having regard for the benefits of diversity on the Board.

Nomination Policy

The Board adopted a Nomination Policy which aims to ensure that the Board has a balance of skills, experience and diversity of perspectives appropriate to the requirement of the Company's businesses.

Pursuant to the Nomination Policy, the Nomination Committee shall consider the following criteria in evaluating and selecting candidates for directorships:

- Reputation for integrity
- Business experience relevant and beneficial to the Company
- Willingness to devote adequate time to discharge duties as a member of the Board
- Board Diversity Policy for achieving diversity on the Board

These factors are for reference only, and not meant to be exhaustive and decisive. The Nomination Committee has the discretion to nominate any person, as it considers appropriate. The ultimate decision will be based on merit and contribution that the selected candidates will bring to the Board.

The Nomination Committee identifies individual(s) suitably qualified to become board members, having due regard to the Nomination Policy and the Board Diversity Policy, and assesses the independence of the proposed independent non-executive Director(s) as appropriate. The Nomination Committee makes recommendation(s) to the Board. The Board considers the individual(s) recommended by the Nomination Committee, having due regard to the Nomination Policy and the Board Diversity Policy and confirms the appointment of the individual(s) as Director(s) or recommends the individual(s) to stand for election at a general meeting. Individual(s) appointed by the Board will be subject to election by the shareholders of the Company ("Shareholders") at the next following annual general meeting of the Company (the "AGM") or the next following general meeting in the case of filling a casual vacancy in accordance with the Company's Articles of Association (the "Articles of Association"). Shareholders approve the election of individual(s), who stand(s) for election at general meeting, as Director(s).

The Nomination Committee also considers each retiring Director, having due regard to the Nomination Policy and the Board Diversity Policy, and assesses the independence of each retiring independent non-executive Director. The Nomination Committee makes recommendation(s) to the Board. The Board considers each retiring Director recommended by the Nomination Committee, having due regard to the Nomination Policy and the Board Diversity Policy and recommends the retiring Directors to stand for re-appointment at the AGM in accordance with the Articles of Association. Shareholders approve the re-appointment of Directors at the AGM.

The Board shall have the ultimate responsibility for all matters relating to selection and appointment of Directors. The Nomination Committee will monitor the implementation of the Nomination Policy and from time to time review it, as appropriate, to ensure that it remains relevant to the Company's needs and reflects both current regulatory requirements and good corporate governance practice.

Board of Directors (Continued)

Board Composition

The Board currently has two Executive Directors and seven Non-executive Directors. Three of the seven Non-executive Directors are independent to ensure that proposed strategies protect all shareholders' interests.

During the year ended 31st December 2018 and up to the date of publication of this Annual Report, the Directors of the Company are set out below:

Non-executive Directors

Dr. the Hon. Lee Shau-kee (Chairman)
Dr. Colin Lam Ko-yin
Dr. Lee Ka-kit
Mr. Lee Ka-shing

Independent Non-executive Directors

Mr. Leung Hay-man (*passed away on 11th October 2018*)
Dr. the Hon. Sir David Li Kwok-po
Prof. Poon Chung-kwong
Dr. Moses Cheng Mo-chi (*appointed on 14th January 2019*)

Executive Directors

Mr. Alfred Chan Wing-kin
Mr. Peter Wong Wai-yee

As disclosed in the announcement of the Company dated 30th October 2018, following the passing away of Mr. Leung Hay-man on 11th October 2018, the Company had two Independent Non-executive Directors and did not meet the requirements under Rules 3.10(1) and 3.10A of the Listing Rules. With the appointment of Dr. Moses Cheng Mo-chi as Independent Non-executive Director on 14th January 2019, the Board comprises three Independent Non-executive Directors representing one-third of the members of the Board, which fulfils the requirements under Rules 3.10(1) and 3.10A of the Listing Rules.

The Company received from each of the Independent Non-executive Directors confirmation in writing of their independence pursuant to Rule 3.13 of the Listing Rules and considered them as independent.

Biographical details of the Directors and relevant relationships among them are set out from pages 17 to 20 of this Annual Report. Save as disclosed therein, there is no financial, business, family or other material/relevant relationship among the Directors. A List of Directors and their Role and Function is available on both the websites of The Stock Exchange of Hong Kong Limited (the "Exchange") and the Company.

According to the Articles of Association, one-third of all the directors are subject to retirement by rotation at every AGM. Subject to the provisions contained in the Articles of Association, the term of office of all Non-executive Directors (including Independent Non-executive Directors) shall expire on 31st December 2020.

Chairman of the Board and Managing Director

The Chairman of the Board is Dr. the Hon. Lee Shau-kee and the Managing Director is Mr. Alfred Chan Wing-kin. The roles of the Chairman of the Board and the Managing Director are separate and are not performed by the same individual. The Chairman is responsible for providing leadership to, and overseeing, the functioning of the Board and, with the support of Executive Directors and the Company Secretary, seeking to ensure that all Directors are properly briefed on issues arising at Board meetings and that they receive, in a timely manner, adequate and reliable information. The Managing Director is responsible for managing the business of the Group and leading the management team to implement strategies and objectives adopted by the Board. Their respective responsibilities are clearly established and set out in writing.

Board of Directors (Continued)

Board Meetings

The Board meets regularly at least four times a year at approximately quarterly intervals. The Directors can attend meetings in person or through electronic means of communication in accordance with the Articles of Association.

During the year ended 31st December 2018, the Board met four times. The attendance record of each Director at the Board meetings during the year ended 31st December 2018 is set out below:

Directors	No. of Meetings Attended / Held
Non-executive Directors	
Dr. the Hon. Lee Shau-kee (Chairman)	4/4
Dr. Colin Lam Ko-yin	4/4
Dr. Lee Ka-kit	4/4
Mr. Lee Ka-shing	4/4
Independent Non-executive Directors	
Mr. Leung Hay-man*	0/3
Dr. the Hon. Sir David Li Kwok-po	4/4
Prof. Poon Chung-kwong	4/4
Executive Directors	
Mr. Alfred Chan Wing-kin	4/4
Mr. Peter Wong Wai-yee	4/4

* Mr. Leung Hay-man passed away on 11th October 2018.

Regular Board meetings of the year are scheduled in advance and at least 14 days' notice is given to all Directors so as to give them an opportunity to attend. Meeting agenda and accompanying meeting papers are sent to all relevant Directors at least 3 days before the date of a Board or committee meeting to enable the Directors to make informed decisions on matters to be raised at the meetings. All Directors are given an opportunity to include matters in the agenda for Board meetings.

In addition, Directors at all times have full and timely access to all information on the Group and may seek independent professional advice at the Company's expense in carrying out their functions, after making a request to the Board.

Directors' Securities Transactions

The Company has adopted the Model Code for Securities Transactions by Directors of Listed Issuers as set out in Appendix 10 to the Listing Rules as the code for dealing in securities of the Company by the Directors (the "Model Code"). Having made specific enquiry by the Company, all Directors confirmed that they had fully complied with the required standard set out in the Model Code throughout the year ended 31st December 2018.

The Board has also established written guidelines for relevant employees, including certain employees of the Company, certain directors or employees of its subsidiaries who are considered to be likely to possess inside information in relation to the Company or its securities (the "Relevant Employees"), in respect of their dealings in the Company's securities.

Board of Directors (Continued)

Directors' Responsibility for the Financial Statements

The Directors acknowledge their responsibility for preparing the financial statements for the year ended 31st December 2018, which give a true and fair view of the state of affairs of the Company and of the Group at that date and of the Group's results and cash flows for the year then ended and are properly prepared on a going concern basis in accordance with statutory requirements and applicable accounting standards. The Directors shall ensure the publication of the Group's financial statements in a timely manner.

The statement of the Auditor of the Company about their reporting responsibilities on the financial statements of the Group is set out in the Independent Auditor's Report from pages 85 to 90 of this Annual Report.

Board Committees

The Board has established the following Board committees to oversee particular aspects of the Company's affairs:

Board Audit and Risk Committee

The Board Audit and Risk Committee (formerly known as Audit Committee) was formed in May 1996. The members of the Board Audit and Risk Committee are Dr. the Hon. Sir David Li Kwok-po (Chairman of the Board Audit and Risk Committee), Mr. Leung Hay-man (who passed away on 11th October 2018), Prof. Poon Chung-kwong and Dr. Moses Cheng Mo-chi (who was appointed on 14th January 2019). Following the passing away of Mr. Leung Hay-man on 11th October 2018, the Board Audit and Risk Committee had two members and did not meet the requirement under Rule 3.21 of the Listing Rules. With the appointment of Dr. Moses Cheng Mo-chi, the Board Audit and Risk Committee comprises a minimum of three members, which fulfils the requirement under Rule 3.21 of the Listing Rules. All members are Independent Non-executive Directors. The Chairman of the Board Audit and Risk Committee has the appropriate professional qualification as required by the Listing Rules.

The principal duty of the Board Audit and Risk Committee is to assist the Board in fulfilling its audit and control-related duties through the review of the Company's financial reporting, risk management and internal control systems. The review covers all material controls, including financial, operational and compliance controls and risk management functions. The Company has adopted written terms of reference for the Board Audit and Risk Committee that clearly define the role, authority and function of the Board Audit and Risk Committee. The terms of reference of the Board Audit and Risk Committee are available on both the websites of the Exchange and the Company.

The Board Audit and Risk Committee held two meetings during the year ended 31st December 2018 and the following sets out a summary of the work of the Board Audit and Risk Committee during the year under review:

- review of the financial reports for 2017 annual results and 2018 interim results;
- recommendation to the Board, for the approval by shareholders, of the re-appointment of PricewaterhouseCoopers as the external Auditor and approval of their remuneration;
- determination of the nature and scope of the audit;
- review of the financial and accounting policies and practices of the Company;
- adoption of an Anti-Fraud Policy with recommendation to the Board;
- review of the effectiveness of the Company's financial control and risk management and internal control systems, including the review of the adequacy of resources, staff qualifications and experience, training programmes and budget of the Company's accounting and financial reporting function; and
- review of the terms of reference of the Board Audit and Risk Committee with recommendation to the Board.

Board of Directors (Continued)

Board Audit and Risk Committee (Continued)

The attendance record of each member at the Board Audit and Risk Committee meetings during the year ended 31st December 2018 is set out below:

Board Audit and Risk Committee Members	No. of Meetings Attended / Held
Dr. the Hon. Sir David Li Kwok-po (Chairman)	2/2
Mr. Leung Hay-man*	1/2
Prof. Poon Chung-kwong	2/2

* Mr. Leung Hay-man passed away on 11th October 2018.

Remuneration Committee

The Company established a Remuneration Committee on 7th September 2005. The Remuneration Committee is chaired by Dr. the Hon. Sir David Li Kwok-po (Independent Non-executive Director) with Dr. the Hon. Lee Shau-kee (Non-executive Director), Prof. Poon Chung-kwong (Independent Non-executive Director) and Dr. Moses Cheng Mo-chi (Independent Non-executive Director who was appointed on 14th January 2019) as members.

The principal duties of the Remuneration Committee include, but are not limited to, making recommendations to the Board on the Company's policy and structure for all remuneration of Directors and senior management (who are also executive directors of the Company), reviewing and approving the special remuneration packages of all executive directors with reference to corporate goals and objectives resolved by the Board from time to time and determining, with delegated responsibility, the remuneration packages of individual executive directors. The Company has adopted written terms of reference for the Remuneration Committee that clearly define the role, authority and function of the Remuneration Committee. The terms of reference of the Remuneration Committee are available on both the Exchange's and the Company's websites.

The Company has not adopted any share option scheme. The emoluments of Directors are determined based on the duties and responsibilities of each Director. The Directors' fees were reviewed by the Remuneration Committee. During the year ended 31st December 2018, every Director received a Director's fee at the rate of HK\$250,000 per annum while the Chairman of the Board received an additional fee at the rate of HK\$250,000 per annum and each member of the Board Audit and Risk Committee, the Remuneration Committee and the Nomination Committee received additional fees at the rate of HK\$250,000, HK\$100,000 and HK\$100,000 per annum respectively. The Remuneration Committee considered the fees reasonable in view of the Directors' responsibilities.

During the year ended 31st December 2018, the Remuneration Committee held its meeting once to review the Directors' fees and the remuneration of the Executive Directors. The attendance record of each member at the Remuneration Committee meeting during the year ended 31st December 2018 is set out below:

Remuneration Committee Members	No. of Meeting Attended / Held
Dr. the Hon. Sir David Li Kwok-po (Chairman)	1/1
Dr. the Hon. Lee Shau-kee	1/1
Prof. Poon Chung-kwong	1/1

Board of Directors (Continued)

Nomination Committee

The Company established a Nomination Committee on 19th March 2012. The Nomination Committee is chaired by Dr. the Hon. Lee Shau-kee (Non-executive Director) with members who are all Independent Non-executive Directors, including Dr. the Hon. Sir David Li Kwok-po, Prof. Poon Chung-kwong and Dr. Moses Cheng Mo-chi (who was appointed on 14th January 2019).

The principal duties of the Nomination Committee include, but are not limited to, reviewing the structure, size and composition (including the skills, knowledge and experience) of the Board and making recommendations on any proposed changes to the Board to complement the Group's corporate strategy. It is also responsible for making recommendations to the Board on nominations and appointment of directors as well as assessing the independence of independent non-executive directors. The Committee shall consider the candidate from a range of backgrounds on his/her merits and against objective criteria set out by the Board. The Company has adopted written terms of reference for the Nomination Committee that clearly define the role, authority and function of the Nomination Committee. The terms of reference of the Nomination Committee are available on both the Exchange's and the Company's websites.

The Nomination Committee held one meeting during the year ended 31st December 2018. During the year under review, the Nomination Committee reviewed the structure, size and composition (including the skills, knowledge and experience) of the Board and assessed the independence of all independent non-executive directors of the Company. It also recommended to the Board for approval of the re-election of the retiring Directors at the 2018 AGM.

The attendance record of each member at the Nomination Committee meeting during the year ended 31st December 2018 is set out below:

Nomination Committee Members	No. of Meeting Attended / Held
Dr. the Hon. Lee Shau-kee (Chairman)	1/1
Dr. the Hon. Sir David Li Kwok-po	1/1
Prof. Poon Chung-kwong	1/1

Auditor's Remuneration

For the year ended 31st December 2018, the total remuneration in respect of statutory audit services provided by the Company's external auditor, PricewaterhouseCoopers, amounted to approximately HK\$11.8 million. During the year, payment to PricewaterhouseCoopers in respect of non-audit services, mainly including taxation services and interim results review services provided to the Group amounted to approximately HK\$3.6 million.

Risk Management and Internal Control

Internal Control

The Board is responsible for maintaining sound and effective risk management and internal control systems for the Group in order to safeguard the Group's assets and shareholders' interests, as well as for reviewing the effectiveness of such systems.

Risk management and internal control systems are designed to manage rather than eliminate the risk of failure to achieve business objectives, and can only provide reasonable and not absolute assurance against material misstatement or loss. Policies and procedures are established to ensure that all payments and investments are properly authorised, critical assets and data are safeguarded as well as all company records are accurate and complete. In addition, the Group has a strict internal code of conduct and an Anti-Fraud Policy which provide guidance on the ethical behaviour when handling issues such as bribery and corruption, conflicts of interest, insider dealing, acceptance of gift and entertainment and fair dealing. The Board adopted a Whistleblowing Policy which provides reporting channels and guidance for employees and other parties who deal with the Group (e.g. contractors and suppliers, etc.) to report possible improprieties in matters of financial reporting or other matters. The Whistleblowing Policy and the Anti-Fraud Policy are available on the Company's website.

The Group's internal audit function, which is independent of the Group's management team, assesses and monitors the effectiveness of the Group's risk management and internal control systems and reports to the Board Audit and Risk Committee on a half-yearly basis. The function has unrestricted access to the company records that allows it to review all aspects of the Group's control and governance process. Yearly audit plan is prepared for review and approval by the Board Audit and Risk Committee. The scope of work includes financial and operational review, recurring and unscheduled audit, fraud investigation and compliance review. The opinion, as formulated by the function on the effectiveness of the risk management and internal control systems, together with the major findings and implementation progress of the audit recommendations, would be reported to the Board Audit and Risk Committee.

During the year ended 31st December 2018, the Board, through the Board Audit and Risk Committee, has conducted a bi-annual review of the overall effectiveness of the Group's internal control systems over financial, operational and compliance controls, risk management process, information systems security, scope and quality of the management's monitoring of risks and internal control systems, the effectiveness of financial reporting and compliance with the Listing Rules.

The Board ensured that the resources, staff qualifications and experience, training programmes and budget of the Company's accounting, internal audit and financial reporting functions were adequate. The Board concluded that in general, the Group had set up a sound control environment and installed necessary control mechanisms to monitor and correct non-compliance or material internal control defects, if any. The Board also considered that the Group's risk management and internal control systems are effective and adequate.

Risk Management and Internal Control (Continued)

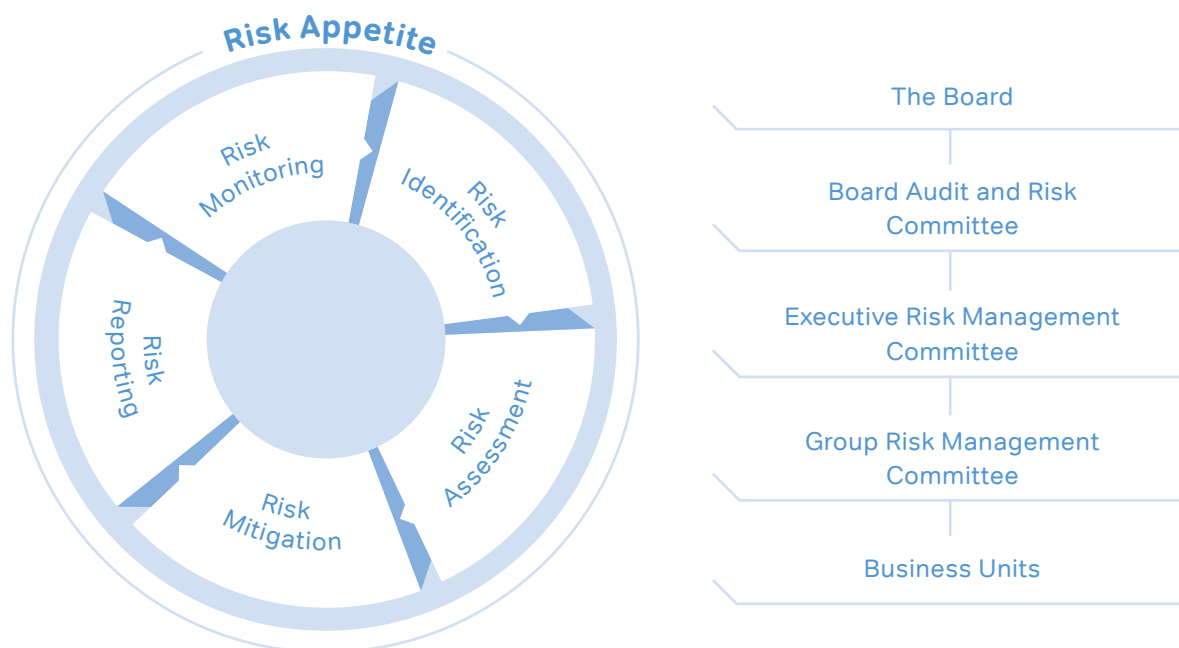
Risk Management

Risk Management Framework

Rooted in corporate's vision and mission, the Group strives the best to provide its customers with a safe, reliable supply of energy as well as the caring, competent and efficient service they expect. Meanwhile, the Group is also working to pursue sustainable development and caring for the environment, people and community.

To ensure growth and long-term value for the key stakeholders, the Group considers risk governance as its top priority and is committed to establishing a robust system of risk identification and management which is central to its ongoing success.

The Group has in place an Enterprise Risk Management Framework (the "Framework") that depicts the system to effectively identify, assess, mitigate, report and monitor key business risks across all business units of the organisation. The system enables the management team to gain a clear view of the significant risks for better strategy setting and project execution which ultimately contribute to enhanced business performance.



Risk Appetite

To pursue the Group's mission and keep in line with the expectations of its stakeholders, the Group is willing to take reasonable and manageable risks that are consistent with its strategic business drivers and necessary to promote innovation and continued growth but would not expose the Group to the following:

1. Major incidents affecting safety and health of its staff, contractors and the general public;
2. Loss or failure of infrastructures and operations materially affecting production and supply;
3. Material financial loss impacting ability of the Group to carry out its business drivers;
4. Incidents leading to profound negative impact on corporate image or reputation;
5. Legal actions that are liable for major loss or suspension of operations; and
6. Incidents leading to severe impacts on the environment.

Risk Management and Internal Control (Continued)

Risk Management (Continued)

Risk Management Structure

The risk management structure sets out the mechanism by which authority is exercised, decisions are taken and organisation is effectively supervised. The Board Audit and Risk Committee supports the Board in overseeing the overall risk management system and provides assurance to the Board at least annually that the system is operating effectively. The Executive Risk Management Committee (“ERMC”), which is composed of all Executive Committee Members of the Company, is responsible for the system formulation and its effective implementation to maintain risk exposures within the risk appetite. It is assisted by the Group Risk Management Committee (“GRMC”), which comprises risk owners who are also the key business management team. GRMC reviews the major risk exposure, monitors the implementation of risk-mitigating controls and reports to ERMC regularly on the results of risk management review.

Risk Management Process

The risk management process is embedded into the day-to-day operation and is an ongoing process carried out by everyone in the organisation across all business units.

Each company of the Group has its own risk management process and system. Regular communication is made among companies, regional offices and headquarters of the Group on the latest risk exposures and mitigation measures to ensure risks are effectively managed and issues are timely reported. Regular independent review would be performed to ensure the risk management system is operating effectively.

The GRMC would communicate and summarise the key risks (also taking emerging risks into account) across all businesses through senior executives, who continuously monitor all material risks faced by the companies of the Group in their corresponding regions and business streams.

The summarised key risks would be reviewed continuously and reassessed within the Group by adopting the risk assessment criteria as set out in the Framework. Priorities would be given to high and medium risks on implementation of risk mitigating measures. A risk management update that highlights the summarised key risks and action plans would be submitted to and discussed by ERMC at least annually for monitoring purpose while top risks and measures would finally be selected for review by the Board Audit and Risk Committee on behalf of the Board. The Board Audit and Risk Committee, based on the review of top risks and adopted measures, ensures at least an annual review of the effectiveness of the risk management system has been conducted.

A description of the Group’s risk factors is shown on page 60 of the Annual Report. The Group seeks continuous improvement to the Framework in response to the changing business environment.

Policy and Procedures on Disclosure of Inside Information

The Board has adopted the Policy and Procedures on Disclosure of Inside Information which contains the guidelines to the officers (referring to Directors, managers or Company Secretary of the Company) and all the Relevant Employees of the Company to ensure that the inside information of the Company is to be disseminated to the public in an equal and timely manner in accordance with the applicable laws and regulations. The Policy and Procedures on Disclosure of Inside Information is available on the Company’s website.

Company Secretary

The Company Secretary is responsible for assisting the Board by ensuring good information flow within the Board members as well as the Board policy and procedures being followed properly. The Company Secretary also provides professional advice to the Board on corporate governance and other matters. He is also responsible for organising general meetings of the Company and facilitating the induction and professional development of the Directors.

During the year ended 31st December 2018, the Company Secretary undertook no less than 15 hours of relevant professional training.

Communication with Shareholders

The Board is committed to maintaining an ongoing communication with shareholders and providing timely disclosure of information concerning the Group's material developments to shareholders and investors.

The AGM provides a good forum for communication between the Board and shareholders. The notice of the AGM is despatched to all shareholders at least 20 clear business days prior to such AGM. The chairmen of all Board Committees are invited to attend the AGM. The Chairman of the Board and the chairmen of all the Board Committees are available to answer questions at the AGM. Auditor is also invited to attend the AGM to answer questions about the conduct of the audit, the preparation and content of the auditor's report, the accounting policies and auditor's independence.

Pursuant to the Listing Rules, any vote of shareholders at a general meeting will be taken by poll. Detailed procedures for conducting a poll will be explained to the shareholders in the general meeting so that shareholders are familiar with such voting procedures. The poll results will be posted on the websites of the Exchange and the Company on the day of the general meeting. Moreover, a separate resolution will be proposed by the chairman of a general meeting in respect of each substantially separate issue.

The 2018 AGM was held on 6th June 2018. The attendance record of each Director at the 2018 AGM is set out below:

Directors	No. of Meeting Attended / Held
Non-executive Directors	
Dr. the Hon. Lee Shau-kee (Chairman)	1/1
Dr. Colin Lam Ko-yin	1/1
Dr. Lee Ka-kit	1/1
Mr. Lee Ka-shing	1/1
Independent Non-executive Directors	
Mr. Leung Hay-man*	0/1
Dr. the Hon. Sir David Li Kwok-po	1/1
Prof. Poon Chung-kwong	1/1
Executive Directors	
Mr. Alfred Chan Wing-kin	1/1
Mr. Peter Wong Wai-yee	1/1

* Mr. Leung Hay-man passed away on 11th October 2018.

Shareholders' Rights

Set out below is a summary of certain rights of the shareholders of the Company which are governed by the provisions of the Articles of Association and applicable laws, rules and regulations.

Convening a General Meeting

Pursuant to the Companies Ordinance (Chapter 622 of the Laws of Hong Kong) (the "Companies Ordinance"), shareholders representing at least 5% of the total voting rights of all the shareholders are entitled to send a request to the Company to convene a general meeting. Such request must state the general nature of the business to be dealt with at the meeting and may include the text of a resolution that may properly be moved and is intended to be moved at the meeting. The request may be sent to the Company in hard copy form or in electronic form and must also be authenticated by the person or persons making it.

Shareholders' Rights (Continued)

Putting Forward Proposals at a Shareholders' Meeting

Pursuant to the Companies Ordinance, shareholders representing at least 2.5% of the total voting rights of all the shareholders or at least 50 shareholders can request the Company in writing to circulate to the shareholders a statement of not more than 1,000 words with respect to a matter mentioned in a proposed resolution to be dealt with at that meeting or other business to be dealt with at that meeting. The request may be sent to the Company in hard copy form or in electronic form and must identify the statement to be circulated. It must be authenticated by the person or persons making it and be received by the Company at least 7 days before such meeting.

Putting Forward Enquiries to the Board

The Company has maintained a policy on shareholders' communication to handle enquiries put to the Board. In order to enable such enquiries be properly directed, designated contacts, email addresses and enquiry lines of the Company were provided on page 192 of this Annual Report and the Company's website.

Proposing a Person for Election as a Director

If a shareholder wishes to propose a person other than a retiring director of the Company for election as a director of the Company at a general meeting, that shareholder should deposit a written notice stating the full name of the person proposed for election as a director of the Company, together with (a) the proposed person's biographical details as required by Rule 13.51(2) of the Listing Rules, and be signed by the shareholder concerned and that proposed person indicating his/her willingness to be elected; and (b) the proposed person's written consent to the publication of his/her personal data not earlier than the day after the despatch of the notice of the meeting and not later than 7 days prior to the day appointed for the meeting. Detailed procedures can be found in the "Procedures for shareholders to propose a person for election as a director of the Company at a general meeting" which is available on the Company's website.

Investor Relations

The Company continues to enhance communications and relationships with its investors. Designated senior management maintains regular communication and dialogue with shareholders, investors and analysts. A meeting with analysts will be held after the announcement of interim or annual results which strengthens the communication with investors. Questions from investors are dealt with in an informative and timely manner.

As a channel to further promote effective communication, the Group maintains a website at www.towngas.com where the Company's announcements and press releases, business developments and operations, financial information, corporate governance practices and other information are posted.

Constitutional Documents

The latest version of the Articles of Association is available on both the Company's and the Exchange's websites. During the year ended 31st December 2018, there was no change in the Articles of Association.

INDEPENDENT AUDITOR'S REPORT



羅兵咸永道

TO THE MEMBERS OF THE HONG KONG AND CHINA GAS COMPANY LIMITED
(incorporated in Hong Kong with limited liability)

Opinion

What we have audited

The consolidated financial statements of The Hong Kong and China Gas Company Limited (the “Company”) and its subsidiaries (the “Group”) set out on pages 91 to 191, which comprise:

- the consolidated income statement for the year ended 31st December 2018;
- the consolidated statement of comprehensive income for the year then ended;
- the consolidated statement of financial position as at 31st December 2018;
- the consolidated cash flow statement for the year then ended;
- the consolidated statement of changes in equity for the year then ended; and
- the notes to the consolidated financial statements, which include a summary of significant accounting policies.

Our opinion

In our opinion, the consolidated financial statements give a true and fair view of the consolidated financial position of the Group as at 31st 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 Hong Kong Companies Ordinance.

Basis for opinion

We conducted our audit in accordance with Hong Kong Standards on Auditing (“HKSAs”) 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 believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Independence

We are independent of the Group in accordance with the HKICPA’s Code of Ethics for Professional Accountants (“the Code”), and we have fulfilled our other ethical responsibilities in accordance with the Code.

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)

Key audit matters identified in our audit are summarised as follows:

- Valuation of investment in certain equity interests of an unlisted company
- Impairment assessment of coal mine and oil properties
- Recognition of gas connection income

Key audit matter	How our audit addressed the key audit matter
<p>Valuation of investment in certain equity interest of an unlisted company</p> <p>Refer to notes 3, 4 and 24 to the consolidated financial statements</p> <p>The investment in certain equity interest of an unlisted company (the "Investment") which owned a coking coal mine and related coke production and coke-gas conversion facility in Inner-Mongolia, was accounted for as a financial asset at fair value through profit or loss and it was subject to fair value revaluation at each reporting date. The Investment at 31st December 2018 was valued by an independent professional valuer. With reference to the valuation, management had estimated the fair value of the Investment at HK\$3.1 billion at year end.</p> <p>In consideration of the Investment is operating in an emerging industry and its fair value is highly dependent on its expansion plan, the valuation involved significant management judgements. Accordingly, the valuation of the Investment was considered as one of the key audit matters.</p> <p>The fair value was determined based on the discounted cash flow model. The valuation involved significant judgements and estimates from management, including coking coal reserves, future business growth driven by future expansion plan, future products selling prices and production costs of the investee, discount rate, marketability discount and minority discount etc.</p>	<p>Our procedures in relation to management's valuation of the Investment include:</p> <ul style="list-style-type: none"> • Evaluating the independent professional valuer's competence, capabilities and objectivity; • Assessing the valuation methodology used by the independent professional valuer to estimate the fair value of the Investment; • Checking, on a sample basis, the accuracy and reasonableness of the input data provided by management to the independent professional valuer, to supporting evidence, such as approved budgets and considering the reasonableness of these budgets by comparing the budgets to the historical results and market data; • Assessing the reasonableness of cash flows projection, challenging and performing audit procedures on management's assumptions such as coking coal reserves, the future business growth driven by future expansion plan, future products selling prices and production costs, discount rate by comparing the assumptions to historical results and published market and industry data and comparing the current year's results with the prior year forecast and other relevant information. Internal valuation expert has been engaged to assist the review on valuation methodology, discount rate, marketability discount and minority discount. In addition, we had met with the management of the Investment to understand the business and assessed if there was any inconsistency in the assumptions used in the cash flows projection; and • Testing the mathematical accuracy of the cash flows projection. <p>Based on the audit procedures performed, we found the assumptions made by management in relation to the valuation were supported by available evidence.</p>

Key audit matters (Continued)

Key audit matter	How our audit addressed the key audit matter
<p>Impairment assessment of coal mine and oil properties</p> <p>Refer to notes 4 and 16 to the consolidated financial statements</p> <p>In relation to the new energy business segment, the Group owned oil properties in Thailand which engaged in the exploration, drilling and sale of crude oil and a coal mine in Mainland China. The carrying values of the coal mine and oil properties are mainly included under “mining and oil properties” of HK\$3.1 billion (after impairment as detailed below) of property, plant and equipment as at 31st December 2018. In the consideration of the prices of the primary outputs of these projects, namely coal and oil were in relatively low level and volatile in recent years, management considered there were impairment indicators and performed impairment assessments on these assets. A provision for an impairment loss of HK\$200 million was recognised in the consolidated income statement for the year ended 31st December 2018.</p> <p>Under the impairment assessments, management calculated the recoverable amounts under value-in-use method. As the value-in-use calculations require the use of significant management judgement and estimates, including the coal and oil reserves, future business growth, future products selling price and production costs, discount rate etc., we consider it was one of the key audit matters.</p>	<p>Our procedures in relation to management's impairment assessment of coal mine and oil properties include:</p> <ul style="list-style-type: none"> • Evaluating the independent professional valuer's and consultant's competence, capabilities and objectivity; • Assessing the methodology used by management to estimate value in use; • Checking, on a sample basis, the accuracy and relevance of the input data to supporting evidence, such as approved budgets and considering the reasonableness of these budgets by comparing the budgets to the historical results and the market data; • Assessing the appropriateness of cash flows projections in calculation of the value-in-use of the coal mine and oil properties, challenging the reasonableness of key assumptions such as the coal and oil reserves, future business growth, future products selling prices and production costs, discount rate, etc. based on our knowledge of the business and industry by comparing the assumptions to historical results and published market and industry data and comparing the current year's actual results with the prior year forecast. Internal valuation expert had been engaged to assist the review on the methodology of the value-in-use calculations and discount rate; and • Performing sensitivity analysis in consideration of potential impact of reasonably possible downside changes in these key assumptions; <p>Based on the audit procedures performed, we found that the assumptions made by management were supported by available evidence.</p>

Key audit matters (Continued)

Key audit matter	How our audit addressed the key audit matter
<p>Recognition of gas connection income</p> <p>Refer to notes 4 and 5 to the consolidated financial statements</p> <p>Gas connection income is recognised when or as the control of the underlying performance obligations is transferred to the customer.</p> <p>The Group had recognised gas connection income of HK\$3.3 billion for the year ended 31st December 2018.</p> <p>Management identified performance obligations from the contract and determined corresponding transaction price. For performance obligation being satisfied at point in time, revenue is recognised when the customer obtains control of the service. For performance obligation being satisfied over time, the progress towards complete satisfaction of the performance obligation is measured using input method. Management are required to exercise significant judgement in their review and revision of the estimates of the total contract costs and actual costs incurred up to the end of the reporting period for each contract as the contract progresses, based on past experience and specific circumstances.</p> <p>The eventual realisation of these estimates are subject to the finalisation of the costs. Any change in the estimate of the total contract costs, which determined the progress towards complete satisfaction of performance obligation, would affect the gas connection income recognition.</p> <p>Due to its quantitative significance to the consolidated income statement and judgments involved in the determination of the progress, we considered recognition of gas connection income as one of the key audit matters.</p>	<p>Our audit procedures in relation to recognition of gas connection income and margins included the following:</p> <ul style="list-style-type: none"> • Understanding, evaluating and testing the key controls surrounding the gas connection income cycle, including the assessment of project status, estimation of the total contract costs and actual costs incurred; • Evaluating the appropriateness of profit margin adopted by management by comparing to profit margin of similar services and external market data, if available; • Checking, on a sample basis, to contracts, invoices, project status reports and other relevant correspondences to evaluate the project status, reasonableness of management's assessment of budgeted total contract costs and actual costs incurred, and to validate the amounts of income recognised; and • Selecting contracts, on a sample basis, to perform interview with the project managers and assessed whether or not these estimates showed any evidence of management bias. <p>We found the management's estimations and judgements in the recognition of gas connection income to be reasonable based on the available evidence.</p>

Other information

The directors of the Company are responsible for the other information. The other information comprises all of 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 directors and those charged with governance for the consolidated financial statements

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

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

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

Auditor's responsibilities for the audit of the consolidated financial statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. We report our opinion solely to you, as a body, in accordance with Section 405 of the Hong Kong Companies Ordinance 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.
- 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.

Auditor's responsibilities for the audit of the consolidated financial statements (Continued)

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

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

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

The engagement partner on the audit resulting in this independent auditor's report is Chu Ho Kwan Raphael.

PricewaterhouseCoopers

Certified Public Accountants
Hong Kong, 20th March 2019

PricewaterhouseCoopers, 22/F, Prince's Building, Central, Hong Kong
T: +852 2289 8888, F: +852 2810 9888, www.pwchk.com

CONSOLIDATED INCOME STATEMENT

for the year ended 31st December 2018

	Note	2018 HK\$'M	2017 HK\$'M
Revenue	5	39,073.0	32,476.5
Total operating expenses	6	(30,689.8)	(24,845.2)
		8,383.2	7,631.3
Other gains, net	7	20.0	630.1
Interest expense	9	(1,176.6)	(1,256.9)
Share of results of associates	21	3,589.5	2,604.3
Share of results of joint ventures	22	1,523.4	1,487.9
Profit before taxation	10	12,339.5	11,096.7
Taxation	13	(1,907.6)	(1,749.8)
Profit for the year		10,431.9	9,346.9
Attributable to:			
Shareholders of the Company		9,312.8	8,225.3
Holders of perpetual capital securities		107.4	111.2
Non-controlling interests		1,011.7	1,010.4
		10,431.9	9,346.9
Earnings per share – basic and diluted, HK cents	15	60.5	53.5*

* Adjusted for the bonus share issue in 2018

The notes on pages 99 to 191 form part of these consolidated financial statements.

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

for the year ended 31st December 2018

	2018 HK\$'M	2017 HK\$'M
Profit for the year	10,431.9	9,346.9
Other comprehensive income:		
<i>Item that will not be reclassified subsequently to profit or loss:</i>		
Movement in reserve of equity investments at fair value through other comprehensive income	6.7	–
Remeasurements of retirement benefit	(73.4)	124.1
<i>Items that may be reclassified subsequently to profit or loss:</i>		
Movement in reserve of debt investments at fair value through other comprehensive income	(20.9)	–
Movement in reserve of available-for-sale financial assets	–	(120.5)
Change in fair value of cash flow hedges	(88.7)	(117.5)
Share of other comprehensive income/(loss) of an associate	3.6	(2.9)
Exchange differences	(2,699.7)	3,614.4
Other comprehensive (loss)/income for the year, net of tax	(2,872.4)	3,497.6
Total comprehensive income for the year	7,559.5	12,844.5
Total comprehensive income attributable to:		
Shareholders of the Company	6,818.3	11,137.0
Holders of perpetual capital securities	107.4	111.2
Non-controlling interests	633.8	1,596.3
	7,559.5	12,844.5

The notes on pages 99 to 191 form part of these consolidated financial statements.

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

as at 31st December 2018

	Note	2018 HK\$'M	2017 HK\$'M
Assets			
Non-current assets			
Property, plant and equipment	16	57,978.8	55,827.4
Investment property	17	778.0	764.0
Leasehold land	18	2,214.5	2,229.3
Intangible assets	19	5,682.1	5,883.6
Associates	21	26,314.1	23,393.4
Joint ventures	22	10,950.3	10,889.2
Available-for-sale financial assets	23	–	4,289.9
Financial assets at fair value through other comprehensive income	23	1,127.0	–
Financial assets at fair value through profit or loss	24	3,506.7	–
Derivative financial instruments	25	55.4	269.9
Retirement benefit assets	26	–	60.4
Other non-current assets	27	3,474.0	3,089.0
		112,080.9	106,696.1
Current assets			
Inventories	28	2,480.7	2,578.3
Trade and other receivables	29	7,615.9	7,512.0
Loan and other receivables from associates	21	356.9	241.4
Loan and other receivables from joint ventures	22	822.6	939.7
Loan and other receivables from non-controlling shareholders		155.0	103.1
Financial assets at fair value through profit or loss	24	303.5	42.1
Derivative financial instruments	25	38.2	119.6
Time deposits over three months	30	338.6	2,071.0
Time deposits up to three months, cash and bank balances	30	8,500.8	10,758.6
		20,612.2	24,365.8
Current liabilities			
Trade and other payables and contract liabilities	31	(13,929.4)	(14,269.8)
Amounts due to joint ventures	22	(1,049.5)	(1,137.9)
Loan and other payables due to non-controlling shareholders		(148.0)	(175.3)
Provision for taxation		(496.8)	(531.9)
Borrowings	32	(8,062.7)	(15,757.0)
Redeemable perpetual securities	32	(2,349.6)	–
Derivative financial instruments	25	(114.9)	(76.2)
		(26,150.9)	(31,948.1)
Total assets less current liabilities		106,542.2	99,113.8

The notes on pages 99 to 191 form part of these consolidated financial statements.

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

(Continued)

as at 31st December 2018

	Note	2018 HK\$'M	2017 HK\$'M
Non-current liabilities			
Deferred taxation	33	(6,099.1)	(5,723.1)
Borrowings	32	(27,609.3)	(21,161.8)
Asset retirement obligations		(48.6)	(46.9)
Derivative financial instruments	25	(558.9)	(604.5)
Retirement benefit liabilities	26	(23.8)	–
Other non-current liabilities	34	(2,009.2)	(1,331.6)
		(36,348.9)	(28,867.9)
Net assets		70,193.3	70,245.9
Capital and reserves			
Share capital	35	5,474.7	5,474.7
Reserves	36	56,926.0	54,964.1
Shareholders' funds		62,400.7	60,438.8
Perpetual capital securities	37	–	2,354.1
Non-controlling interests		7,792.6	7,453.0
Total equity		70,193.3	70,245.9

Approved by the Board of Directors on 20th March 2019

Lee Shau-kee
Director

David Li Kwok-po
Director

The notes on pages 99 to 191 form part of these consolidated financial statements.

CONSOLIDATED CASH FLOW STATEMENT

for the year ended 31st December 2018

	Note	2018 HK\$'M	2017 HK\$'M
Net cash from operating activities	41	9,438.9	8,524.4
Investing activities			
Receipt from sale of property, plant and equipment		136.2	63.0
Receipt from sale of leasehold land		65.9	7.7
Purchase of property, plant and equipment		(6,567.0)	(6,004.5)
Payment for leasehold land		(179.0)	(136.4)
Increase in other intangible assets		–	(4.2)
Increase in investments in associates		(703.7)	(303.1)
Increase in loans to associates		(226.7)	(135.8)
Repayment of loans by associates		61.3	7.9
Disposal of associates		–	29.6
Increase in investments in joint ventures		(27.3)	(71.2)
Increase in loans to joint ventures		(14.7)	(50.0)
(Decrease)/increase in amounts due to joint ventures		(92.4)	205.1
Repayment of loans by joint ventures		51.7	53.0
Consideration paid for acquisition of businesses in prior periods		(22.1)	(11.9)
Acquisition of businesses	42 (a)& (b)	(61.6)	(68.1)
Sale of financial assets at fair value through profit or loss		803.0	415.0
Sale of financial assets at fair value through other comprehensive income/available-for-sale financial assets		84.2	1,157.3
Purchase of financial assets at fair value through profit or loss		(1,108.0)	(303.5)
Purchase of financial assets at fair value through other comprehensive income/available-for-sale financial assets		(26.4)	(118.9)
Decrease in time deposits over three months		1,724.3	1,326.3
Interest received		310.4	256.2
Dividends received from investments in securities		125.8	187.5
Dividends received from associates		949.9	887.6
Dividends received from joint ventures		939.6	940.8
Net cash used in investing activities		(3,776.6)	(1,670.6)

The notes on pages 99 to 191 form part of these consolidated financial statements.

CONSOLIDATED CASH FLOW STATEMENT (Continued)

for the year ended 31st December 2018

	Note	2018 HK\$'M	2017 HK\$'M
Financing activities			
Shares bought back		–	(15.4)
Change in loans with non-controlling shareholders		(76.6)	3.8
Capital injection by non-controlling shareholders		169.2	15.1
Further acquisition of subsidiaries	42 (c)	(70.6)	(385.4)
Partial disposal of a subsidiary		31.1	–
Increase in borrowings		20,526.2	12,673.4
Repayment of borrowings		(21,195.6)	(9,919.9)
Interest paid to holders of perpetual capital securities		(111.6)	(110.9)
Interest paid		(1,486.0)	(1,571.8)
Dividends paid to shareholders of the Company	43 (a)	(5,063.6)	(4,603.2)
Dividends paid to non-controlling shareholders		(511.0)	(425.2)
Net cash used in financing activities		(7,788.5)	(4,339.5)
(Decrease)/increase in cash and cash equivalents		(2,126.2)	2,514.3
Cash and cash equivalents at 1st January		10,758.6	8,076.1
Effect of foreign exchange rate changes		(131.6)	168.2
Cash and cash equivalents at 31st December		8,500.8	10,758.6
Analysis of the balances of cash and cash equivalents			
Cash and bank balances		4,857.1	4,549.9
Time deposits up to three months		3,643.7	6,208.7
		8,500.8	10,758.6

The notes on pages 99 to 191 form part of these consolidated financial statements.

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

for the year ended 31st December 2018

	Attributable to shareholders of the Company		Holders of perpetual capital securities HK\$'M	Non-controlling interests HK\$'M	Total HK\$'M
	Share capital HK\$'M	Reserves HK\$'M			
As at 1st January 2018	5,474.7	54,964.1	2,354.1	7,453.0	70,245.9
Changes in accounting policy	-	254.5	-	24.8	279.3
As at 1st January 2018 (restated)	5,474.7	55,218.6	2,354.1	7,477.8	70,525.2
Profit for the year	-	9,312.8	107.4	1,011.7	10,431.9
Other comprehensive income:					
Movement in reserve of financial assets at fair value through other comprehensive income	-	(33.3)	-	19.1	(14.2)
Remeasurements of retirement benefit	-	(73.4)	-	-	(73.4)
Change in fair value of cash flow hedges	-	(88.7)	-	-	(88.7)
Share of other comprehensive income of an associate	-	3.6	-	-	3.6
Exchange differences	-	(2,302.7)	-	(397.0)	(2,699.7)
Total comprehensive income for the year	-	6,818.3	107.4	633.8	7,559.5
Capital injection	-	-	-	169.2	169.2
Further acquisition of subsidiaries (note 42(c))	-	(22.2)	-	(48.4)	(70.6)
Interest paid on perpetual capital securities	-	-	(111.6)	-	(111.6)
Dividends paid to shareholders of the Company	-	(5,063.6)	-	-	(5,063.6)
Dividends paid to non-controlling shareholders	-	-	-	(511.0)	(511.0)
Acquisition of businesses	-	-	-	52.1	52.1
Partial disposal of a subsidiary	-	12.0	-	19.1	31.1
Redemption of perpetual capital securities	-	(37.1)	(2,349.9)	-	(2,387.0)
As at 31st December 2018	5,474.7	56,926.0	-	7,792.6	70,193.3

The notes on pages 99 to 191 form part of these consolidated financial statements.

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY (Continued)

for the year ended 31st December 2018

	Attributable to shareholders of the Company		Holders of perpetual capital securities HK\$'M	Non-controlling interests HK\$'M	Total HK\$'M
	Share capital HK\$'M	Reserves HK\$'M			
As at 1st January 2017	5,474.7	48,457.5	2,353.8	6,612.0	62,898.0
Profit for the year	–	8,225.3	111.2	1,010.4	9,346.9
Other comprehensive income:					
Remeasurements of retirement benefit	–	124.1	–	–	124.1
Movement in reserve of available-for-sale financial assets	–	(112.6)	–	(7.9)	(120.5)
Change in fair value of cash flow hedges	–	(117.5)	–	–	(117.5)
Share of other comprehensive loss of an associate	–	(2.9)	–	–	(2.9)
Exchange differences	–	3,020.6	–	593.8	3,614.4
Total comprehensive income for the year	–	11,137.0	111.2	1,596.3	12,844.5
Capital injection	–	–	–	15.1	15.1
Further acquisition of subsidiaries	–	(11.8)	–	(373.6)	(385.4)
Interest paid on perpetual capital securities	–	–	(110.9)	–	(110.9)
Dividends paid to shareholders of the Company	–	(4,603.2)	–	–	(4,603.2)
Dividends paid to non-controlling shareholders	–	–	–	(425.2)	(425.2)
Acquisition of businesses	–	–	–	28.4	28.4
Shares bought back	–	(15.4)	–	–	(15.4)
As at 31st December 2017	5,474.7	54,964.1	2,354.1	7,453.0	70,245.9

The notes on pages 99 to 191 form part of these consolidated financial statements.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

1 General information

The Hong Kong and China Gas Company Limited (the “Company”) and its subsidiaries (collectively, the “Group”) have been diversified into different fields of businesses and principally engage in the production, distribution and marketing of gas, water supply and emerging environmentally-friendly energy businesses in Hong Kong and the People’s Republic of China (the “PRC”). The Group is also engaged in property development and investment activities in Hong Kong.

The Company is a limited liability company incorporated and domiciled in Hong Kong and listed on The Stock Exchange of Hong Kong Limited. The address of its registered office is 23rd Floor, 363 Java Road, North Point, Hong Kong.

2 Summary of significant accounting policies

The principal accounting policies applied in the preparation of the consolidated financial statements are set out below. These policies have been consistently applied to both years presented, unless otherwise stated.

(a) Basis of preparation

The consolidated financial statements of the Company have been prepared in accordance with Hong Kong Financial Reporting Standards (“HKFRS”). They have been prepared under the historical cost convention, as modified by the revaluation of investment property, available-for-sale financial assets, financial assets and liabilities at fair value through profit or loss (“FVPL”), financial assets and liabilities at fair value through other comprehensive income (“FVOCI”) and derivative financial instruments, which are carried at fair value.

As at 31st December 2018, the Group was in a net current liability position of approximately HK\$5.5 billion. This was mainly because the maturity of the US\$300 million perpetual securities had been reclassified to current liabilities upon serving of the redemption notice, as well as settlement of US\$1 billion guaranteed notes which was not fully refinanced by non-current borrowings. Taking into the Group’s available facilities, history of obtaining external financing and the Group’s expected cash flows from operations, management believes that there are sufficient financial resources available to the Group to meet its liabilities as and when they fall due. Accordingly, these consolidated financial statements have been prepared on a going concern basis.

The preparation of financial statements in conformity with HKFRS requires the use of certain critical accounting estimates. It also requires management to exercise its judgement in the process of applying the Group’s accounting policies. The areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the consolidated financial statements are disclosed in note 4.

(i) *New or revised standards, interpretations and amendments adopted in 2018*

The Group has adopted the following amendments to standards which are effective for the Group’s financial year beginning 1st January 2018 and relevant to the Group.

Amendments to HKFRS 2	Classification and Measurement of Share-based Payment Transactions
Amendments to HKFRS 4	Applying HKFRS 9 Financial Instruments with HKFRS 4 Insurance Contracts
Amendments to HKAS 40	Transfers of Investment Property
HK(IFRIC)-Interpretation 22	Foreign Currency Transactions and Advance Consideration

The adoption of the amendments to standards and interpretations has no significant impact on the Group’s results and financial position or any substantial changes in Group’s accounting policies.

2 Summary of significant accounting policies (Continued)

(a) Basis of preparation (Continued)

(i) *New or revised standards, interpretations and amendments adopted in 2018* (Continued)

Save as mentioned above, the HKICPA has issued the following new or amendments to standards which are effective for accounting period beginning 1st January 2018, with the impact of the adoption of these standards and the new accounting policies being disclosed in note 2(b).

HKFRS 9	Financial Instruments
HKFRS 15	Revenue from Contracts with Customers
Amendments to HKFRS 15	Clarification to HKFRS 15

(ii) *New or revised standards, interpretations and amendments that are not yet effective for the year ended 31st December 2018 but relevant to the Group and have not been early adopted by the Group*

HKFRS 16	Leases
HKFRS 17	Insurance Contracts
Amendments to HKAS 1 and HKAS 8	Amendments to Definition of Materiality
Amendments to HKAS 19	Plan Amendment, Curtailment or Settlement
Amendments to HKAS 28	Investments in Associates and Joint Ventures
Amendments to HKFRS 3	Definition of Business
Amendments to HKFRS 9	Prepayment Features with Negative Compensation
Amendments to HKFRS 10 and HKAS 28	Sale or Contribution of Assets between an Investor and its Associate or Joint Venture
Annual Improvements Project	Annual Improvements to HKASs and HKFRSs 2015-2017 Cycle
HK(IFRIC)-Interpretation 23	Uncertainty over Income Tax Treatments
Conceptual Framework for Financial Reporting 2018	Revised Conceptual Framework for Financial Reporting

HKFRS 16 “Leases” (effective from 1st January 2019)

Nature of change

HKFRS 16 was issued in May 2016. It will result in almost all leases being recognised on the statement of financial position by lessees, as the distinction between operating and finance leases is removed. Under the new standard, an asset (the right to use the leased item) and a financial liability to pay rentals are recognised. The only exceptions are short-term and low-value leases.

Potential impact

The Group has set up a project team which has reviewed all of the Group’s leasing arrangements over the last year in light of the new lease accounting rules in HKFRS 16. The standard will affect primarily the accounting for the Group’s operating leases.

2 Summary of significant accounting policies (Continued)

(a) Basis of preparation (Continued)

(ii) *New or revised standards, interpretations and amendments that are not yet effective for the year ended 31st December 2018 but relevant to the Group and have not been early adopted by the Group* (Continued)

HKFRS 16 “Leases” (effective from 1st January 2019) (Continued)

Potential impact (Continued)

As at the reporting date, the Group has non-cancellable operating lease commitments of HK\$579.2 million (note 39).

The Group's activities as a lessor are not material and hence the management does not expect any significant impact on the financial statements. However, some additional disclosures will be required from next year.

The Group will apply the standard from its mandatory adoption date of 1st January 2019. The Group intends to apply the simplified transition approach and will not restate comparative amounts for the year prior to first adoption. Upon adoption of HKFRS 16 on 1st January 2019, there would be recognition of right-of-use assets and lease liabilities in the Group's consolidated statement of financial position at 1st January 2019 and the aggregate amount of depreciation charge on the right-of-use assets and finance costs on the lease liabilities in the Group's consolidated income statement.

Except for the above, the Group anticipates that the application of the other amendments and improvements to standards that have been issued but are not yet effective may have no material impact on the results of operations and financial position.

(iii) **Hong Kong Companies Ordinance (Cap.622)**

These consolidated financial statements comply with the applicable requirements of Hong Kong Companies Ordinance (Cap. 622), with the exception of Section 381 which requires a company to include all its subsidiary undertakings (within the meaning of Schedule 1 to Cap. 622) in the company's annual consolidated financial statements. Section 381 is inconsistent with the requirements of HKFRS 10 Consolidated Financial Statements so far as Section 381 applies to subsidiary undertakings which are not controlled by the Group in accordance with HKFRS 10. For this reason, under the provisions of Section 380(6), the Company has departed from Section 381 and has not treated such companies as subsidiaries but they are accounted for in accordance with the accounting policies in notes 2(c)(iv & v). Those excluded subsidiary undertakings of the Group are disclosed in notes 21 and 22.

2 Summary of significant accounting policies (Continued)

(b) Changes in accounting policies

The impacts of the adoption of HKFRS 9 Financial Instruments and HKFRS 15 Revenue from Contracts with Customers on the Group's consolidated financial statements are detailed below and it also discloses the new accounting policies that have been applied from 1st January 2018, where they are different to those applied in prior periods.

(i) Impact on the consolidated financial statements

As explained in note 2(b)(ii) below, HKFRS 9 was generally adopted without restating comparative information. The reclassifications and the adjustments arising from the new impairment rules are therefore not reflected in the consolidated statement of financial position as at 31st December 2017, but are recognised in the opening consolidated statement of financial position on 1st January 2018.

The following tables show the adjustments recognised for each individual financial statement line item. Financial statement line items that were not affected by the changes have not been included. The adjustments are explained in more detail by standard below.

	31st December 2017 HK\$'M	HKFRS 9 HK\$'M	1st January 2018 HK\$'M
Consolidated statement of financial position (extract)			
Non-current assets			
Associates	23,393.4	22.1	23,415.5
Joint ventures	10,889.2	(9.9)	10,879.3
Available-for-sale financial assets	4,289.9	(4,289.9)	–
Financial assets at FVPL	–	3,619.6	3,619.6
Financial assets at FVOCI	–	1,209.4	1,209.4
Derivative financial instruments	269.9	(231.9)	38.0
Current assets			
Trade and other receivables	7,512.0	(13.6)	7,498.4
Financial assets at FVPL	42.1	65.5	107.6
Non-current liabilities			
Deferred taxation	(5,723.1)	(92.0)	(5,815.1)
Capital and reserves			
Reserves	54,964.1	254.5	55,218.6
Non-controlling interests			
	7,453.0	24.8	7,477.8

(ii) HKFRS 9 Financial Instruments – Impact of adoption

HKFRS 9 replaces the provisions of HKAS 39 that relate to the recognition, classification and measurement of financial assets and financial liabilities, derecognition of financial instruments and impairment of financial assets.

The adoption of HKFRS 9 Financial Instruments from 1st January 2018 resulted in changes in accounting policies and adjustments to the amounts recognised in the consolidated financial statements. The new accounting policies are set out in note 2(m) below. In accordance with the transitional provisions in HKFRS 9 (7.2.15), comparative figures have not been restated.

2 Summary of significant accounting policies (Continued)

(b) Changes in accounting policies (Continued)

(ii) HKFRS 9 Financial Instruments – Impact of adoption (Continued)

The total impact on the Group's retained profits as at 1st January 2018 is as follows:

	Notes	2018 HK\$'M
Closing retained profits 31st December 2017 – HKAS 39		53,166.9
Reclassify investments from available-for-sale to FVPL	(a)	153.4
Increase in provision for trade receivables		(8.5)
Increase in provision for trade receivables of associates and joint ventures		(10.0)
Adjustment to retained profits from adoption of HKFRS 9 on 1st January 2018		134.9
Opening retained profits 1st January 2018 – HKFRS 9		53,301.8

(a) Classification and measurement

On 1st January 2018, the Group's management has assessed which business models apply to the financial assets held by the Group and has classified its financial instruments into the appropriate HKFRS 9 categories. The main effects resulting from this reclassification are as follows:

Financial assets – 1st January 2018	Notes	FVPL HK\$'M	Available- for-sale HK\$'M	FVOCI HK\$'M	Derivative financial instruments HK\$'M
Closing balance 31st December 2017 – HKAS 39		42.1	4,289.9	–	389.5
Reclassify investments from available-for-sale to FVPL	(i)	3,453.2	(3,248.6)	–	–
Reclassify equity investments from available-for-sale to FVOCI	(ii)	–	(579.5)	747.6	–
Reclassify bonds from available-for- sale to FVOCI	(iii)	–	(461.8)	461.8	–
Reclassify embedded derivatives from derivative financial instruments to FVPL		231.9	–	–	(231.9)
Opening balance 1st January 2018 – HKFRS 9		3,727.2	–	1,209.4	157.6

2 Summary of significant accounting policies (Continued)

(b) Changes in accounting policies (Continued)

(ii) HKFRS 9 Financial Instruments – Impact of adoption (Continued)

(a) Classification and measurement (Continued)

The impact (net of tax) of these changes on the Group's equity is as follows:

	Notes	Effect on AFS reserves HK\$'M	Effect on FVOCI reserve HK\$'M	Effect on retained profits* HK\$'M
Opening balance – HKAS 39		7.0	–	53,166.9
Reclassify listed equities from available-for-sale to FVOCI	(ii)	9.4	(9.4)	–
Reclassify bonds from available-for-sale to FVOCI	(iii)	(16.4)	16.4	–
Reclassify unlisted equities from available-for-sale to FVPL	(i)	–	–	153.4
Reclassify unlisted equities from available-for-sale to FVOCI	(ii)	–	119.6	–
Total impact		(7.0)	126.6	153.4
Opening balance – HKFRS 9		–	126.6	53,320.3

* Before adjustment for impairment. See note (b) below.

Note

(i) Reclassification from available-for-sale to FVPL

Certain listed and unlisted equities were reclassified from available-for-sale to financial assets at FVPL. Related fair value gains (net of tax) of HK\$153.4 million were recognised in retained profits on 1st January 2018.

(ii) Equity investments previously classified as available-for-sale

The Group elected to present in other comprehensive income ("OCI") changes in the fair value of certain equity investments previously classified as available-for-sale, because these investments are held as long-term strategic investments that are not expected to be sold in the short to medium term. As a result, assets with a fair value of HK\$579.5 million were reclassified from available-for-sale financial assets to FVOCI and fair value gains (net of tax) of HK\$110.2 million were recognised in FVOCI reserve on 1st January 2018.

(iii) Available-for-sale instruments classified as FVOCI

Listed bonds were reclassified from available-for-sale to FVOCI, as the Group's business model is achieved both by collecting contractual cash flows and selling of these assets. For those that were designated as FVOCI debt instrument, the contractual cash flows of these investments are solely principal and interest. As a result, listed bonds with a fair value of HK\$461.8 million were reclassified from available-for-sale financial assets to FVOCI and fair value gains (net of tax) of HK\$16.4 million were reclassified from the available-for-sale financial assets reserve to the FVOCI reserve on 1st January 2018.

(iv) Other financial assets

Equity securities – held for trading are required to be held at FVPL under HKFRS 9, but there was no impact on the amounts recognised in relation to these assets from the adoption of HKFRS 9.

2 Summary of significant accounting policies (Continued)

(b) Changes in accounting policies (Continued)

(ii) HKFRS 9 Financial Instruments – Impact of adoption (Continued)

(b) Impairment of financial assets

The Group has three types of financial assets that are subject to HKFRS 9's new expected credit loss model:

- trade receivables,
- other receivables and loan and other receivables from associates, joint ventures and non-controlling shareholders, and
- debt investments carried at FVOCI.

The Group was required to revise its impairment methodology under HKFRS 9 for each of these classes of assets. The impact of the change in impairment methodology on the Group's retained earnings and equity is disclosed in the table in note 2(b)(ii) above.

While cash and bank balances are also subject to the impairment requirements of HKFRS 9, the identified impairment loss was immaterial.

Trade receivables

The Group applies the HKFRS 9 simplified approach to measure expected credit losses which uses a lifetime expected loss allowance for trade receivables.

To measure the expected credit losses, trade receivables have been grouped based on shared credit risk characteristics and the days past due.

On that basis, the loss allowance as at 1st January 2018 was determined as follows:

HK\$'M	Current	1 – 30 days	31 – 60 days	61 – 90 days	Over 90 days	Total
Weighted average expected loss rate	0%	0%	0%	0%	43.0%	
Gross carrying amount – trade receivables	3,053.5	240.0	119.0	41.5	468.3	3,922.3
Loss allowance	–	–	–	–	201.4	201.4

The loss allowances for trade receivables as at 31st December 2017 reconcile to the opening loss allowances on 1st January 2018 as follows:

	Trade receivables HK\$'M
At 31st December 2017 – calculated under HKAS 39	(187.8)
Amounts restated through opening retained profits and non-controlling interests	(13.6)
Opening loss allowance as at 1st January 2018 calculated under HKFRS 9	(201.4)

Trade receivables are written off when there is no reasonable expectation of recovery. Indicators that there is no reasonable expectation of recovery include, amongst others, the failure of a debtor to engage in a repayment plan with the Group, and a failure to make contractual payments for a period of greater than 90 days past due.

2 Summary of significant accounting policies (Continued)

(b) Changes in accounting policies (Continued)

(ii) HKFRS 9 Financial Instruments – Impact of adoption (Continued)

(b) Impairment of financial assets (Continued)

Other receivables and loan and other receivables from associates, joint ventures and non-controlling shareholders

The loss allowance for other receivables and loan and other receivables from associates, joint ventures and non-controlling shareholders as a result of applying the expected credit risk model was immaterial as there is no increase in credit risk during the year.

Debt investments

All of the Group's debt investments at FVOCI are considered to have low credit risk, and the loss allowance recognised during the year was therefore limited to 12 months expected losses. Management consider 'low credit risk' for most of the listed bonds with an investment grade credit rating with at least one major rating agency. Other instruments are considered to be low credit risk when they have a low risk of default and the issuer has a strong capacity to meet its contractual cash flow obligations in the near term.

(c) Accounting policies applied from 1st January 2018

The Group's new accounting policies applied upon adoption of HKFRS 9 Financial Instruments are set out in note 2(m).

(iii) HKFRS 15 Revenue from Contracts with Customers – Impact of adoption

As explained in note 2(a) above, the Group has adopted HKFRS 15 from 1st January 2018, which resulted in changes in accounting policies. In accordance with the transitional provisions in HKFRS 15, comparative figures have not been restated. The accounting policies were changed to comply with HKFRS 15, which replaces both the provisions of HKAS 18 Revenue ("HKAS 18") and HKAS 11 Construction Contracts ("HKAS 11") and the interpretations that relate to the recognition, classification and measurement of revenue. There is no material impact to the consolidated financial statements for the year ended 31st December 2018 by adopting HKFRS 15 and HKAS 18 and HKAS 11. From 1st January 2018 onwards, the Group has adopted the following accounting policies on revenues:

Revenues are recognised when or as the control of the goods or service is transferred to the customer. Depending on the terms of the contract and the laws that apply to the contract, control of the good or service may be transferred over time or at a point in time. In summary, revenue from gas sales, water sales, oil and coal related sales and equipment sales is recognised at a point in time. Revenue from maintenance services is recognised over time. Other sales include rental income and finance income which are excluded from the scope of HKFRS 15. The remaining revenue streams within other sales are either recognised over time or at a point in time. Revenue from connection income may be recognised over time or at a point in time depending on the terms of the contracts and performance obligations involved.

Control of the goods or service is transferred over time if the Group's performance:

- provides all of the benefits received and consumed simultaneously by the customer;
- creates or enhances an asset that the customer controls as the Group performs; or
- does not create an asset with an alternative use to the Group and the Group has an enforceable right to payment for performance completed to date.

If control of the asset transfers over time, revenue is recognised over the period of the contract by reference to the progress towards complete satisfaction of that performance obligation. Otherwise, revenue is recognised at a point in time when the customer obtains control of the asset.

The progress towards complete satisfaction of the performance obligation is measured based on one of the following methods that best depict the Group's performance in satisfying the performance obligation:

- direct measurements of the value transferred by the Group to the customer; or
- the Group's efforts or inputs to the satisfaction of the performance obligation relative to the total expected efforts or inputs.

2 Summary of significant accounting policies (Continued)

(b) Changes in accounting policies (Continued)

(iii) **HKFRS 15 Revenue from Contracts with Customers – Impact of adoption** (Continued)

Incremental costs incurred to obtain a contract, if recoverable, are capitalised as contract assets and subsequently amortised when the related revenue is recognised.

The adoption does not have a material impact on the recognition of the Group's main revenue streams except for accounting for connection income as detailed below. Rental income from lease agreements is specifically excluded from the scope of the new standard.

Accounting for connection income

In prior reporting periods, the Group accounted for connection income using “stage of completion method” to determine the appropriate amount to recognise in a given period. The stage of completion is measured with reference to the contract costs incurred up to statement of financial position date as a percentage of total estimated costs for each contract. Costs incurred in the year in connection with future activity on a contract are excluded from contract costs in determining the stage of completion.

Under HKFRS 15, revenue from connection income may be recognised over time or at a point in time depending on the terms of the contracts and actual work performed. If the Group satisfies the performance obligation over time then revenue will be recognised over time based on progress of the work. Otherwise, revenue is recognised at a point in time when the performance obligations are satisfied.

Presentation of contract liabilities

Contract liabilities in relation to advance received from customers were previously presented as receipt in advance and other payables and accruals within trade and other payables and contract liabilities (HK\$7,138.5 million as at 31st December 2017).

Financing components

The Group does not expect to have any contracts where the period between the transfer of the promised goods or services to the customer and payment by the customer exceeds one year. As a consequence, the Group does not adjust any of the transaction prices for the time value of money.

(c) Consolidation

The consolidated financial statements include the financial statements of the Company and its subsidiaries made up to 31st December.

(i) **Subsidiaries**

Subsidiaries are entities (including a structured entity) over which the Group has control. The Group controls an entity when the Group is exposed to, 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. Subsidiaries are consolidated from the date on which control is transferred to the Group. They are deconsolidated from the date that control ceases.

The Group applies the acquisition method to account for business combinations. The consideration transferred for the acquisition of a subsidiary is the fair values of the assets transferred, the liabilities incurred to the former owners of the acquiree and the equity interests issued by the Group. The consideration transferred includes the fair value of any asset or liability resulting from a contingent consideration arrangement. Acquisition-related costs are expensed as incurred. Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are measured initially at their fair values at the date of acquisition. Subsequent changes to the fair value of the contingent consideration that is deemed to be an asset or liability is recognised in accordance with HKFRS 9 in the profit or loss. Contingent consideration that is classified as equity is not remeasured, and its subsequent settlement is accounted for within equity. The Group recognises any non-controlling interest in the acquiree on an acquisition-by-acquisition basis, either at fair value or at the non-controlling interest's proportionate share of the recognised amounts of acquiree's identifiable net assets.

2 Summary of significant accounting policies (Continued)

(c) Consolidation (Continued)

(i) *Subsidiaries* (Continued)

Goodwill is initially measured as the excess of the aggregate of the consideration transferred and the fair value of non-controlling interest over the net identifiable assets acquired and liabilities assumed. If this consideration is lower than the fair value of the net assets of the subsidiary acquired, the difference is recognised in the profit or loss.

Inter-company transactions, balances, income and expenses on transactions between group companies are eliminated. Profits and losses resulting from inter-company transactions that are recognised in assets are also eliminated. Accounting policies of subsidiaries have been changed where necessary to ensure consistency with the policies adopted by the Group.

In the Company's statement of financial position, the investments in subsidiaries are stated at cost less provision for impairment. Cost also includes direct attributable cost of investment. The results of subsidiaries are accounted by the Company on the basis of dividend received and receivable.

(ii) *Changes in ownership interests in subsidiaries without change of control*

Transactions with non-controlling interests that do not result in loss of control are accounted for as equity transactions – that is, as transactions with the owners in their capacity as owners. The difference between fair value of any consideration paid and the relevant share acquired of the carrying value of net assets of the subsidiary is recorded in equity. Gains or losses on disposals to non-controlling interests are also recorded in equity.

(iii) *Disposal of subsidiaries*

When the Group ceases to have control, any retained interest in the entity is re-measured to its fair value at the date when control is lost, with the change in carrying amount recognised in the profit or loss. The fair value is the initial carrying amount for the purposes of subsequently accounting for the retained interest as an associate, joint venture or financial asset. In addition, any amounts previously recognised in the other comprehensive income in respect of that entity are accounted for as if the Group had directly disposed of the related assets or liabilities. This may mean that amounts previously recognised in the other comprehensive income are reclassified to the profit or loss.

(iv) *Associates*

Associates are all entities over which the Group has significant influence but not control, generally accompanying a shareholding of between 20 per cent and 50 per cent of the voting rights. Investments in associates are accounted for using the equity method of accounting. Under the equity method, the investment is initially recognised at cost, and the carrying amount is increased or decreased to recognise the investor's share of the profit or loss of the investee after the date of acquisition. The Group's investment in associates includes goodwill identified on acquisition. Upon the acquisition of the ownership interest in an associate, any difference between the cost of the associate and the Group's share of the net fair value of the associate's identifiable assets and liabilities is accounted for as goodwill.

If the ownership interest in an associate is reduced but significant influence is retained, only a proportionate share of the amounts previously recognised in the other comprehensive income is reclassified to the profit or loss where appropriate.

The Group's share of its associates' post-acquisition profits or losses is recognised in the profit or loss, and its share of post-acquisition movements in the other comprehensive income is recognised in the other comprehensive income with a corresponding adjustment to the carrying amount of the investment. When the Group's share of losses in an associate equals or exceeds its interest in the associate, including any other unsecured receivables, the Group does not recognise further losses, unless it has incurred legal or constructive obligations or made payments on behalf of the associate.

2 Summary of significant accounting policies (Continued)

(c) Consolidation (Continued)

(iv) Associates (Continued)

The Group determines at each reporting date whether there is any objective evidence that the investment in the associate is impaired. If this is the case, the Group calculates the amount of impairment as the difference between the recoverable amount of the associate and its carrying value and recognises the amount adjacent to “share of results of associates” in the profit or loss.

Profits and losses resulting from upstream and downstream transactions between the Group and its associate are recognised in the Group’s financial statements only to the extent of unrelated investor’s interests in the associates. Unrealised losses are eliminated unless the transaction provides evidence of an impairment of the asset transferred. Accounting policies of associates have been changed where necessary to ensure consistency with the policies adopted by the Group.

Dilution gains and losses in associates are recognised in the profit or loss.

In the Company’s statement of financial position, the investment in an associate is stated at the cost less provision for impairment. The result of the associate is accounted for by the Company on the basis of dividend received and receivable.

(v) Joint ventures

Joint ventures are joint ventures whereby the Group and other parties undertake an economic activity which is subject to joint control and none of the participating parties has unilateral control over the economic activity. Investments in joint ventures are accounted for by the equity method of accounting. Under the equity method, the investment is initially recognised at cost, and the carrying amount is increased or decreased to recognise the investor’s share of the profit or loss of the investee after the date of acquisition. The Group’s investment in joint ventures includes goodwill identified on acquisition. Upon the acquisition of the ownership interest in a joint venture, any difference between the cost of the joint venture and the Group’s share of the net fair value of the joint venture’s identifiable assets and liabilities is accounted for as goodwill.

If the ownership interest in a joint venture is reduced but significant influence is retained, only a proportionate share of the amounts previously recognised in the other comprehensive income is reclassified to the profit or loss where appropriate.

The Group’s share of its joint ventures’ post-acquisition profits or losses is recognised in the profit or loss, and its share of post-acquisition movements in the other comprehensive income is recognised in the other comprehensive income with a corresponding adjustment to the carrying amount of the investment. When the Group’s share of losses in a joint venture equals or exceeds its interest in the joint venture, including any other unsecured receivables, the Group does not recognise further losses, unless it has incurred legal or constructive obligations or made payments on behalf of the joint venture.

The Group determines at each reporting date whether there is any objective evidence that the investment in the joint venture is impaired. If this is the case, the Group calculates the amount of impairment as the difference between the recoverable amount of the joint venture and its carrying value and recognises the amount adjacent to “share of results of joint ventures” in the profit or loss.

Profits and losses resulting from upstream and downstream transactions between the Group and its joint venture are recognised in the Group’s financial statements only to the extent of unrelated investor’s interests in the joint ventures. Unrealised losses are eliminated unless the transaction provides evidence of an impairment of the asset transferred. Accounting policies of joint ventures have been changed where necessary to ensure consistency with the policies adopted by the Group.

2 Summary of significant accounting policies (Continued)

(c) Consolidation (Continued)

(v) *Joint ventures* (Continued)

Dilution gains and losses in joint ventures are recognised in the profit or loss.

In the Company's statement of financial position, the investments in joint ventures are stated at cost less provision for impairment. The results of joint ventures are accounted for by the Company on the basis of dividend received and receivable.

(d) Segment reporting

Operating segments are reported in a manner consistent with the internal reporting provided to the chief operating decision-maker. The chief operating decision-maker, who is responsible for allocating resources and assessing performance of the operating segments, has been identified as the executive committee members that makes strategic decisions.

(e) Foreign currency translation

(i) *Functional and presentation currency*

Items included in the financial statements of each of the Group's entities are measured using the currency of the primary economic environment in which the entity operates (the "functional currency"). The consolidated financial statements are presented in Hong Kong dollars ("HKD"), which is the Company's functional and presentation currency.

(ii) *Transactions and balances*

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions or valuation where items are remeasured. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in the profit or loss except when deferred in equity as qualifying cash flow hedges and qualifying net investment hedges.

Translation differences on non-monetary financial assets and liabilities are reported as part of the fair value gain or loss. Translation differences on non-monetary financial assets and liabilities such as equities held at FVPL are recognised in the profit or loss as part of the fair value gain or loss. Translation differences on non-monetary financial assets are included in OCI.

(iii) *Group companies*

The results and financial position of all the Group entities, including associates and joint ventures, (none of which has the currency of a hyperinflationary economy) that have a functional currency different from the presentation currency are translated into the presentation currency as follows:

- assets and liabilities for each statement of financial position presented are translated at the closing rate at the date of that statement of financial position;
- income and expenses for each income statement are translated at average exchange rates (unless this average is not a reasonable approximation of the cumulative effect of the rates prevailing on the transaction dates, in which case income and expenses are translated at the dates of the transactions); and
- all resulting exchange differences are recognised in OCI.

On consolidation, exchange differences arising from the translation of the net investment in foreign operations, are taken to OCI. When a foreign operation is sold, exchange differences that were recorded in equity are recognised in the profit or loss as part of the gain or loss on sale.

Goodwill and fair value adjustments arising on the acquisition of a foreign entity are treated as assets and liabilities of the foreign entity and translated at the closing rate.

2 Summary of significant accounting policies (Continued)

(f) Exploration and evaluation expenditure

Exploration and evaluation expenditure comprises costs which are directly attributable to: researching and analysing historical exploration data; conducting geological studies, exploratory drilling and sampling; examining and testing extraction and treatment methods; and compiling pre-feasibility and feasibility studies. Exploration and evaluation expenditure also includes the costs incurred in acquiring mining and oil properties, the entry premiums paid to gain access to areas of interest and amounts payable to third parties to acquire interests in existing projects.

During the initial stage of a project, exploration and evaluation costs, other than costs incurred in acquiring land use right and mining and oil properties, are expensed as incurred. Expenditure on a project after it has reached a stage at which there is a high degree of confidence in its viability is capitalised and transferred to property, plant and equipment if the project proceeds. If a project does not prove viable, all irrecoverable costs associated with the project are expensed in the profit or loss.

(g) Property, plant and equipment

Property, plant and equipment are stated at cost less accumulated depreciation and accumulated impairment. The capitalised costs in respect of capital work in progress include direct materials, direct labour costs, subcontracting costs, capitalised borrowing costs and other direct overheads. Capital work in progress is transferred to relevant categories of property, plant and equipment upon completion of their respective work.

Subsequent costs are included in the asset's carrying amount or recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Group and the cost of the item can be measured reliably. The carrying amount of the replaced part is derecognised. All other repairs and maintenance incurred in restoring property, plant and equipment to their normal working condition are charged to the profit or loss.

Depreciation of property, plant and equipment is calculated on a straight-line basis to allocate the cost less accumulated impairment of each component of the asset to its residual value over its estimated useful life as follows:

Production plant and related equipment	10 – 40 years
Vehicles, office furniture and equipment	5 – 15 years
Gas mains and risers	25 – 40 years
Water mains	30 – 50 years
Gasholders, office, store and buildings	20 – 40 years
Meters and installations	5 – 30 years
Mining and oil properties	Based on the units of production method utilising only estimated recoverable coal and oil reserves as the depletion base
Others	5 – 30 years
Capital work in progress	No depreciation

The assets' residual values and useful lives are reviewed, and adjusted if appropriate, at each date of statement of financial position.

Gains or losses on disposal of a property, plant and equipment is the difference between the net sales proceeds and the carrying amount of the relevant asset and is recognised in the profit or loss.

2 Summary of significant accounting policies (Continued)

(h) Deferred overburden removal costs

Mining structures include deferred stripping costs and mining related property, plant and equipment. When estimated coal reserves have been determined, stripping costs incurred to develop coal mines are capitalised as part of the cost of the mining structures. Stripping costs incurred during the production phase are variable production costs that are included in the costs of inventory produced during the period that the stripping costs are incurred, unless the stripping activity can be shown to give rise to future benefits from the mineral properties, in which case the stripping costs would be capitalised into property, plant and equipment as mining structures. Future benefits arise when stripping activity increases the future output of the mine by providing access to a new ore body.

Mining structures are depreciated on the unit-of-production method utilising only estimated coal reserves in the depletion base, or based on the useful lives of respective items of property, plant and equipment, whichever is appropriate.

(i) Investment property

Property that is held for long-term rental yields or for capital appreciation or both, and that is not occupied by the Group, is classified as investment property.

Investment property comprises land held under operating leases and buildings held under finance leases.

Land held under operating leases are classified and accounted for as investment property when the rest of the definition of investment property is met. In such cases, the operating leases concerned are accounted for as if it were finance leases.

Investment property is measured initially at its cost, including related transaction costs. After initial recognition, investment property is carried at fair value. Fair value is based on active market value, adjusted, if necessary, for any difference in the nature, location or condition of the specific asset. If this information is not available, the Group uses alternative valuation methods such as recent prices on less active markets or discounted cash flow projections. These valuations are performed in accordance with the HKIS Valuation Standards (2017 Edition) published by the Hong Kong Institute of Surveyors ("HKIS"). These valuations are reviewed annually by qualified valuers. The fair value of investment property reflects, among other things, rental income from current leases and assumptions about rental income from future leases in the light of current market conditions. The fair value also reflects, on a similar basis, any cash outflows that could be expected in respect of the property.

Subsequent expenditure is charged to the asset's carrying amount only when it is probable that future economic benefits associated with the item will flow to the Group and the cost of the item can be measured reliably. All other repairs and maintenance costs are expensed in the profit or loss during the financial period in which they are incurred.

Changes in fair values are recognised in the profit or loss.

Property that is being constructed or developed for future use as investment property is classified as investment properties and measured at fair value unless fair value cannot be reliably determined. Any difference between the fair value of the property at that date and its previous carrying amount is recognised in the profit or loss.

If an item of property, plant and equipment becomes an investment property because its use has changed, any difference resulting between the carrying amount and the fair value of this item at the date of transfer is recognised in equity as a revaluation of property, plant and equipment. However, if a fair value gain reverses a previous impairment, the gain is recognised in the profit or loss.

2 Summary of significant accounting policies (Continued)

(j) Leases

(i) *Operating leases*

Leases in which a significant portion of the risks and rewards of ownership are retained by the lessor are classified as operating leases. Payments made under operating leases (net of any incentives received from the lessor) are charged in the profit or loss on a straight-line basis over the period of the lease.

(ii) *Finance leases*

Leases of assets where the Group has substantially all the risks and rewards of ownership are classified as finance leases. Finance leases are capitalised at the lease's commencement at the lower of the fair value of the leased property and the present value of the minimum lease payments. Each lease payment is allocated between the liability and finance charges so as to achieve a constant rate on the finance balance outstanding. The corresponding rental obligations, net of finance charges, are included in current and non-current borrowings. The interest element of the finance cost is recognised in the profit or loss over the lease period so as to produce a constant periodic rate of interest on the remaining balance of the liability for each period.

The property, plant and equipment acquired under finance leases are carried at cost less accumulated depreciation and impairment. They are depreciated over the shorter of the useful life of the assets and the lease term.

(k) Intangible assets

Goodwill represents the excess of the cost of an acquisition over the fair value of the Group's share of the net identifiable assets of the acquired subsidiaries, associates and joint ventures at the date of acquisition. Goodwill on acquisitions of subsidiaries is included in "intangible assets". Goodwill arising on an acquisition of an associate or joint venture is included in the cost of the investment of the relevant associate or joint venture. Separately recognised goodwill is tested annually for impairment and carried at cost less accumulated impairment losses. Impairment losses on separately recognised goodwill are not reversed. Gains and losses on the disposal of an entity include the carrying amount of goodwill relating to the entity sold.

Separately recognised goodwill is allocated to cash-generating units, primarily individual projects, for the purpose of impairment testing. The allocation is made to those cash-generating units or groups of cash-generating units that are expected to benefit from the business combination in which the goodwill arose.

Other intangible asset is carried at cost less accumulated amortisation and impairment. Amortisation is calculated using the straight-line method to allocate the cost over the period of the relevant right from 15 years to 50 years.

(l) Impairment of investments in subsidiaries, associates, joint ventures and non-financial assets

Goodwill are at least tested annually for impairment and are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. Other assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable.

An impairment is recognised for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs of disposal and value in use. For the purposes of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash flows (cash-generating units). Assets other than separately recognised goodwill that suffered an impairment are reviewed for possible reversal of the impairment at each reporting date.

2 Summary of significant accounting policies (Continued)

(m) Investments and other financial assets

(i) *Classification*

From 1st January 2018, the Group classifies its financial assets in the following categories: those to be measured subsequently at fair value (either through OCI or through profit or loss) and those to be measured at amortised cost. The classification depends on the entity's business model for managing the financial assets and the contractual terms of the cash flows.

For assets measured at fair value, gains and losses will either be recorded in the profit or loss or OCI. For investments in equity instruments that are not held for trading, this will depend on whether the Group has made an irrevocable election at the time of initial recognition to account for the equity investment at FVOCI.

The Group reclassifies debt investments when and only when its business model for managing those assets changes.

(ii) *Recognition and derecognition*

Regular way purchases and sales of financial assets are recognised on trade-date, the date on which the Group commits to purchase or sell the asset. Financial assets are derecognised when the rights to receive cash flows from the financial assets have expired or have been transferred and the group has transferred substantially all the risks and rewards of ownership.

(iii) *Measurement*

At initial recognition, the Group measures a financial asset at its fair value plus, in the case of a financial asset not at FVPL, transaction costs that are directly attributable to the acquisition of the financial asset. Transaction costs of financial assets carried at FVPL are expensed in the profit or loss.

Financial assets with embedded derivatives are considered in their entirety when determining whether their cash flows are solely payment of principal and interest.

Debt instruments

Subsequent measurement of debt instruments depends on the group's business model for managing the asset and the cash flow characteristics of the asset. The group classifies its debt instruments as FVOCI where assets that are held for collection of contractual cash flows and for selling the financial assets, where the assets' cash flows represent solely payments of principal and interest, are measured at FVOCI. Movements in the carrying amount are taken through OCI, except for the recognition of impairment gains or losses, interest income and foreign exchange gains and losses which are recognised in the profit or loss. When the financial asset is derecognised, the cumulative gain or loss previously recognised in OCI is reclassified from equity to the profit or loss and recognised in other gains, net. Interest income from these financial assets is included in finance income using the effective interest rate method.

Equity instruments

The Group subsequently measures all equity investments at fair value. Where the Group's management has elected to present fair value gains and losses on equity investments in OCI, there is no subsequent reclassification of fair value gains and losses to the profit or loss following the derecognition of the investment. Dividends from such investments continue to be recognised in the profit or loss as other gains, net when the group's right to receive payments is established.

Changes in the fair value of financial assets at FVPL are recognised in other gains, net in the profit or loss as applicable. Impairment losses (and reversal of impairment losses) on equity investments measured at FVOCI are not reported separately from other changes in fair value.

2 Summary of significant accounting policies (Continued)

(m) Investments and other financial assets (Continued)

(iv) Impairment

From 1st January 2018, the Group assesses on a forward looking basis the expected credit losses associated with its debt instruments carried at amortised cost and FVOCI. The impairment methodology applied depends on whether there has been a significant increase in credit risk.

For trade receivables, the Group applies the simplified approach permitted by HKFRS 9, which requires expected lifetime losses to be recognised from initial recognition of the receivables, see note 29 for further details.

(v) Accounting policies applied until 31st December 2017

The Group has applied HKFRS 9 retrospectively, but has elected not to restate comparative information. As a result, the comparative information provided continues to be accounted for in accordance with the Group's previous accounting policy.

Until 31st December 2017, the Group classified its financial assets in the following categories: financial assets at FVPL, loans and receivables and available-for-sale financial assets. The classification depended on the purpose for which the financial assets were acquired. Management determined the classification of its financial assets at initial recognition.

(i) Financial assets at FVPL

Financial assets at FVPL were financial assets held for trading and those designated at FVPL at inception. A financial asset was classified in this category if acquired principally for the purpose of selling in the short term or if so designated by management. Assets in this category were classified as current assets.

(ii) Loans and receivables

Loans and receivables were non-derivative financial assets with fixed or determinable payments that were not quoted in an active market, and with no intention of trading the receivables. They were included in the current assets, except for maturities greater than 12 months after the date of statement of financial position which were classified as non-current assets.

(iii) Available-for-sale financial assets

Available-for-sale financial assets were non-derivatives that were either designated in this category or not classified in any of the other categories. They were included in non-current assets unless management intended to dispose of the investments within 12 months of the date of statement of financial position.

The unlisted equity securities were carried at cost less impairment when these investments did not have a quoted market price and range of reasonable fair value estimate was so significant that the directors of the Company were of the opinion that their fair value cannot be measured reliably.

Regular purchases and sales of financial assets were recognised on trade-date – the date on which the Group committed to purchase or sell the asset. Investments were initially recognised at fair value plus transaction costs for all financial assets not carried at fair value through profit or loss. Financial assets carried at FVPL were initially recognised at fair value and transaction costs were expensed in the profit or loss. Financial assets were derecognised when the rights to receive cash flows from the investments had expired or had been transferred and the Group had transferred substantially all risks and rewards of ownership. Available-for-sale financial assets and financial assets at FVPL were subsequently carried at fair value.

2 Summary of significant accounting policies (Continued)

(m) Investments and other financial assets (Continued)

(v) Accounting policies applied until 31st December 2017 (Continued)

Gains and losses arising from changes in the fair value of the “financial assets at FVPL” category were presented in the profit or loss within “other gains, net”, in the period in which they arise. Dividend income from financial assets at FVPL was recognised in the profit or loss as part of “other gains, net” when the Group’s right to receive payment was established.

Changes in the fair value of monetary securities denominated in a foreign currency and classified as available-for-sale were analysed between translation differences resulting from changes in amortised cost of the securities and other changes in the carrying amount of the securities. Translation differences resulting from changes in the amortised cost of the securities were recognised in the profit or loss, and other changes in the carrying amount were recognised in OCI.

When available-for-sale financial assets were sold or impaired, the accumulated fair value adjustments recognised in equity were included in the profit or loss as gains and losses on disposal of available-for-sale financial assets under “other gains, net”.

Interest on available-for-sale financial assets calculated using the effective interest method was recognised in the profit or loss as part of “other gains, net”. Dividends on available-for-sale equity instruments were recognised in the profit or loss as part of “other gains, net” when the Group’s right to receive payments was established.

The fair values of quoted investments were based on current bid prices. If the market for a financial asset was not active (and for unlisted securities), the Group established fair value by using valuation techniques including the use of recent arm’s length transactions, reference to other instruments that were substantially the same, discounted cash flow analysis, and option pricing models, making maximum use of market inputs and relying as little as possible on entity-specific inputs.

The Group might choose to reclassify a non-derivative trading financial asset out of the financial assets at FVPL category if the financial asset was no longer held for the purpose of selling it in the near term. Financial assets other than loans and receivables were permitted to be reclassified out of the financial assets at FVPL category only in rare circumstances arising from a single event that was unusual and highly unlikely to recur in the near term.

Reclassifications were made at fair value as of the reclassification date. Fair value became the new cost, and no reversals of fair value gains or losses recorded before reclassification date were subsequently made.

(n) Derivative financial instruments and hedging activities

Derivatives are initially recognised at fair value on the date a derivative contract is entered into and are subsequently remeasured at their fair value. The method of recognising the resulting gain or loss depends on whether the derivative is designated as a hedging instrument, and if so, the nature of the item being hedged. The Group designates certain derivatives as hedges of a particular risk associated with a recognised asset or liability or a highly probable forecast transaction (cash flow hedge).

At the inception of the hedging, the Group documents the economic, relationship between hedging instruments and hedged items, including whether changes in the cash flows of the hedging instruments are expected to offset changes in the cash flows of hedges items. The Group documents its risk management objective and strategy for undertaking its hedge transactions.

The fair values of derivative financial instruments designated in hedge relationships are disclosed in note 25. Movements in the hedging reserve in shareholders’ equity are shown in note 36. The full fair value of a hedging derivative is classified as a non-current asset or liability when the remaining maturity of the hedged item is more than 12 months; it is classified as a current asset or liability when the remaining maturity of the hedged item is less than 12 months. Trading derivatives are classified as a current asset or liability.

2 Summary of significant accounting policies (Continued)

(n) Derivative financial instruments and hedging activities (Continued)

Cash flow hedge that qualify for hedge accounting

The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges is recognised in cash flow hedge reserve within equity. The gain or loss relating to the ineffective portion is recognised immediately in the profit or loss within “other gains, net”.

When option contracts are used to hedge forecast transactions, the Group designates only the intrinsic value of the options as the hedging instrument.

Gains or losses relating to the effective portion of the change in intrinsic value of the options are recognised in the cash flow hedge reserve within equity. The changes in the time value of the options that relate to the hedged item (‘aligned time value’) are recognised within OCI in the costs of hedging reserve within equity.

When forward contracts are used to hedge forecast transactions, the Group generally designates only the change in fair value of the forward contract related to the spot component as the hedging instrument. Gains or losses relating to the effective portion of the change in the spot component of the forward contracts are recognised in the cash flow hedge reserve within equity. The change in the forward element of the contract that relates to the hedged item (‘aligned forward element’) is recognised within OCI in the costs of hedging reserve within equity. In some cases, the entity may designate the full change in fair value of the forward contract (including forward points) as the hedging instrument. In such cases, the gains or losses relating to the effective portion of the change in fair value of the entire forward contract are recognised in the cash flow hedge reserve within equity.

Amounts accumulated in equity are reclassified in the periods when the hedged item affects the profit or loss, as follows:

- Where the hedged item subsequently results in the recognition of a non-financial asset (such as inventory), both the deferred hedging gains and losses and the deferred time value of the option contracts or deferred forward points, if any, are included within the initial cost of the asset. The deferred amounts are ultimately recognised in the profit or loss as the hedged item affects the profit or loss (for example through cost of sales).
- The gain or loss relating to the effective portion of the interest rate swaps hedging variable rate borrowings is recognised in the profit or loss within finance cost at the same time as the interest expense on the hedged borrowings.

When a hedging instrument expires, or is sold or terminated, or when a hedge no longer meets the criteria for hedge accounting, any cumulative deferred gain or loss and deferred costs of hedging in equity at that time remains in equity until the forecast transaction occurs, resulting in the recognition of a non-financial asset such as inventory. When the forecast transaction is no longer expected to occur, the cumulative gain or loss and deferred costs of hedging that were reported in equity are immediately reclassified to the profit or loss.

(o) Inventories

Inventories comprise stores and materials and work in progress and are stated at the lower of cost and net realisable value. Cost, calculated on the weighted average basis, comprises materials, direct labour and an appropriate proportion of overheads. Net realisable value is determined on the basis of anticipated sales proceeds less estimated selling expenses.

(p) Contract assets and contract liabilities

Upon entering into a contract with a customer, the Group obtains rights to receive consideration from the customer and assumes performance obligations to transfer goods or provide services to the customer.

2 Summary of significant accounting policies (Continued)

(p) Contract assets and contract liabilities (Continued)

The combination of those rights and performance obligations gives rise to a net contract asset or a net contract liability depending on the relationship between the remaining rights and the performance obligations. The contract is an asset and recognised as contract assets if the cumulative revenue recognised in the profit or loss exceeds cumulative payments made by customers. Conversely, the contract is a liability and recognised as contract liabilities if the cumulative payments made by customers exceeds the revenue recognised in the profit or loss.

Contract assets are assessed for impairment under the same approach adopted for impairment assessment of financial assets carried at amortised cost. Contract liabilities are recognised as revenue when the Group transfers the goods or services to the customers and therefore satisfied its performance obligation.

The incremental costs of obtaining a contract with a customer are capitalised and presented as contract related assets, if the Group expects to recover those costs, and are subsequently amortised on a systematic basis that is consistent with the transfer to the customers of the goods or services to which the assets relate. The Group recognises an impairment loss in the profit or loss to the extent that the carrying amount of the contract related assets recognised exceeds the remaining amounts of consideration that the Group expects to receive less the costs that relate directly to providing those goods or services that have not been recognised as expenses.

(q) Construction contracts

Contract costs are recognised as expenses in the period in which they are incurred.

When the outcome of a construction contract cannot be reasonably measured, but the Group expects to recover the costs incurred in satisfying the performance obligation, contract revenue is recognised only to the extent of contract costs incurred until such time that the outcome of the performance obligation can be reasonably measured.

When the outcome of a construction contract can be reasonably measured, contract revenue is recognised over time by measuring the progress towards complete satisfaction of that performance obligation. When it is probable that total contract costs will exceed total contract revenue, the expected loss is recognised as an expense immediately.

Variations in contract work, claims and incentive payments are included in contract revenue to the extent that they have been agreed with the customer and are capable of being reliably measured.

In prior reporting periods, the Group accounted for construction contracts using “stage of completion method” to determine the appropriate amount to recognise in a given period. The stage of completion is measured with reference to the contract costs incurred up to the date of statement of financial position as a percentage of total estimated costs for each contract. Costs incurred in the year in connection with future activity on a contract are excluded from contract costs in determining the stage of completion.

(r) Trade and other receivables

Trade and other receivables are amounts due from customers for merchandise sold or services performed in the ordinary course of business. If collection of trade and other receivables is expected in one year or less (or in the normal operating cycle of the business if longer), they are classified as current assets. If not, they are presented as non-current assets.

Trade receivables are recognised initially at the amount of consideration that is unconditional unless they contain significant financing components, when they are recognised at fair value. The Group holds with the objective to collect the contractual cash flows and therefore measures them subsequently at amortised cost using the effective interest method. Further information about the Group’s accounting for trade receivables and description of the Group’s impairment policies are described in note 29 and note 3(b) respectively.

2 Summary of significant accounting policies (Continued)

(s) Cash and cash equivalents

Cash and cash equivalents include cash in hand, deposits held at call with banks, other short term highly liquid investments with original maturities of three months or less and bank overdrafts. In the statement of financial position, cash and cash equivalents are presented as time deposits up to three months, cash and bank balances in current assets and bank overdrafts are included in borrowings in current liabilities.

(t) Trade payables

Trade payables are recognised initially at fair value and subsequently measured at amortised cost using the effective interest method. The amounts are unsecured and are usually paid within 30 days of recognition. Trade payables are presented as current liabilities unless payment is not due within 12 months after the reporting period.

(u) Borrowings and borrowing costs

Borrowings are recognised initially at fair value, net of transaction costs incurred. Borrowings are subsequently stated at amortised cost; any difference between the proceeds (net of transaction costs) and the redemption value is recognised in the profit or loss over the period of the borrowings using the effective interest method.

Fees paid on the establishment of loan facilities are recognised as transaction costs of the loan to the extent that it is probable that some or all of the facility will be drawn down. In this case, the fee is deferred until the draw-down occurs. To the extent there is no evidence that it is probable that some or all of the facility will be drawn down, the fee is capitalised as a pre-payment for liquidity services and amortised over the period of the facility to which it relates.

Borrowings are classified as current liabilities unless the Group has an unconditional right to defer settlement of the liability for at least 12 months after the statement of financial position date.

Borrowing costs that are directly attributable to the acquisition, construction or production of an asset that 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. All other borrowing costs are charged to the profit or loss in the year in which they are incurred.

(v) Current and deferred taxation

The tax expense for the year comprises current and deferred tax. Tax is recognised in the profit or loss, except to the extent that it relates to items recognised in the other comprehensive income or directly in equity. In this case, the tax is also recognised in the other comprehensive income or directly in equity.

The current taxation is calculated on the basis of the tax laws enacted or substantively enacted at the statement of financial position date in the countries where the Company, its subsidiaries, associates and joint ventures operate and generate taxable income. Management periodically evaluates positions taken in tax returns with respect to situations in which applicable tax regulation is subject to interpretation. It establishes provisions where appropriate on the basis of amounts expected to be paid to the tax authorities.

Deferred taxation is recognised using the liability method, on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the consolidated financial statements. However, deferred tax liabilities are not recognised if they arise from the initial recognition of goodwill, deferred taxation is not accounted for if it arises from the initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither accounting nor taxable profit or loss. Deferred taxation is determined using tax rates (and laws) that have been enacted or substantively enacted by the date of statement of financial position and are expected to apply when the related deferred tax asset is realised or the deferred tax liability is settled.

Deferred tax assets are recognised to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilised.

Deferred taxation is provided on temporary differences arising on investments in subsidiaries, associates and joint ventures, except where the timing of the reversal of the temporary difference is controlled by the Group and it is probable that the temporary difference will not reverse in the foreseeable future.

2 Summary of significant accounting policies (Continued)

(w) Revenue and income recognition

- (i) Gas sales – recognised at point in time and based on gas consumption derived from meter readings.
- (ii) Water sales – recognised at a point in time and based on water consumption derived from meter readings.
- (iii) Liquefied petroleum gas sales – recognised at a point in time and upon completion of the gas filling transaction.
- (iv) Equipment sales – recognised at a point in time and upon completion of installation work or when equipment, materials and parts are delivered to customers and title has passed.
- (v) Oil and coal related sales – recognised at a point in time and upon completion of delivery and title has passed.
- (vi) Maintenance and service charges – recognised over time when services are provided.
- (vii) Interest income – recognised on a time proportion basis, taking into account the principal amounts outstanding and the interest rates applicable.
- (viii) Dividend income – recognised when the right to receive payment is established.
- (ix) Rental income – recognised on a straight-line accrual basis over the terms of lease agreements.
- (x) Construction and gas connection income – recognised in accordance with note 2(q).

(x) Employee benefits

Salaries, bonuses and paid annual leave are accrued in the year in which the associated services are rendered by employees to the Group.

The Group operates a number of defined contribution and one defined benefit retirement schemes and the assets of the schemes are held separately from those of the Group in independently administered funds. The retirement schemes are funded by payments from employees and by the Group, taking into account the recommendations of independent qualified actuaries.

(i) *Defined contribution retirement schemes*

The Group contributes to defined contribution retirement schemes and Mandatory Provident Fund schemes which are available to salaried employees in Hong Kong. The Group's contributions to these retirement schemes are calculated as a percentage of the employees' basic salaries or relevant income and are expensed as incurred. No forfeited contributions have been utilised by the Group to reduce the existing contributions.

For employees in mainland China, the Group contributes on a monthly basis to various defined contribution plans organised by the relevant municipal and provincial government in the PRC based on a certain percentage of the relevant employees' monthly salaries. The municipal and provincial governments undertake to assume the retirement benefit obligations payable to all existing and future retired employees under these plans and the Group has no further constructive obligation for post-retirement benefits beyond the contributions made. Contributions to these plans are expensed as incurred.

(ii) *Defined benefit retirement scheme*

The Group also operates a defined benefit retirement scheme, namely the Workmen Retirement Scheme, in Hong Kong. The scheme provides benefit to employees based on final salary. The Group's net obligation in respect of the defined benefit retirement scheme is calculated separately for the scheme using the projected unit credit method. The benefit obligation is measured as the present value of the estimated future benefit that employees have earned for their service in the current and prior years using interest rates of government bonds which have terms to maturity approximating the terms of the related liability.

2 Summary of significant accounting policies (Continued)

(x) Employee benefits (Continued)

(ii) **Defined benefit retirement scheme** (Continued)

The current service cost of the defined benefit plan, recognised in the profit or loss in employee benefit expense, except where included in the cost of an asset, reflects the increase in the defined benefit obligation results from employee service in the current year, benefit changes, curtailments and settlements.

Actuarial gains and losses arising from experience adjustments and changes in actuarial assumptions are charged or credited to equity in other comprehensive income in the period in which they arise. Past-service costs are recognised immediately in the profit or loss.

(y) Provisions and contingencies

Provisions are recognised when the Group has a present legal or constructive obligation as a result of past events, it is probable that an outflow of resources will be required to settle the obligation, and a reliable estimate of the amount can be made. Where the Group expects a provision to be reimbursed, the reimbursement is recognised as a separate asset when the reimbursement is virtually certain.

Provisions are measured at the present value of the expenditures expected to be required to settle the obligation using a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the obligation. The increase in the provision due to passage of time is recognised as interest expense.

A contingent liability is a possible obligation that arises from past events and whose existence will only be confirmed by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the Group. It can also be a present obligation arising from past events that is not recognised because it is not probable that an outflow of economic resources will be required or the amount of obligation cannot be measured reliably.

A contingent liability is not recognised but is disclosed in the notes to the consolidated financial statements. When a change in the probability of an outflow occurs so that the outflow is probable, it will then be recognised as a provision.

A contingent asset is a possible asset that arises from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain events not wholly within the control of the Group.

A contingent asset is not recognised but is disclosed in the notes to the consolidated financial statements when an inflow of economic benefits is probable. When inflow is virtually certain, an asset is recognised.

Asset retirement obligations which meet the criteria of provisions are recognised as provisions and the amount recognised is the present value of the estimated future expenditure determined in accordance with local conditions and requirements, while a corresponding addition to the related oil properties of an amount equivalent to the provision is also created. This is subsequently depleted as part of the costs of the oil properties. Interest expenses from the assets retirement obligations for each period are recognised with the effective interest method during the useful life of the related oil properties.

If the conditions for the recognition of the provisions are not met, the expenditures for the decommissioning, removal and site cleaning will be expensed in the profit or loss when occurred.

3 Financial risk management

Financial risk factors

The Group's activities expose it to a variety of financial risks: market risk (including foreign exchange risk, price risk and cash flow and fair value interest rate risk), credit risk and liquidity risk. The Group's overall risk management programme focuses on the unpredictability of financial markets and seeks to minimise potential adverse effects on the Group's financial performance. The Group uses derivative financial instruments to manage and reduce certain risk exposures.

Risk management is carried out by treasury and investment departments (Group Treasury) under policies approved by the Treasury Committee, comprising all the executive directors of the Company. Group Treasury identifies, evaluates and manages financial risks in close co-operation with the Group's operating units. The Treasury Committee provides written principles for overall risk management, as well as written policies covering specific areas, such as foreign exchange risk, interest-rate risk, credit risk, use of derivative financial instruments and non-derivative financial instruments, and investment of excess liquidity.

(a) Market risk

(i) *Foreign exchange risk*

The Group operates in Hong Kong, mainland China and Thailand and is exposed to foreign exchange risk arising from various currency exposures, primarily with respect to the United States dollars ("USD"), Renminbi ("RMB") and Thailand Baht ("THB"). Foreign exchange risk arises from future commercial transactions and recognised assets and liabilities.

To manage the foreign exchange risk arising from future commercial transactions and recognised assets and liabilities, the Group uses forward contracts. Foreign exchange risk arises when future commercial transactions or recognised assets or liabilities are denominated in a currency that is not the entity's functional currency. The Group has also entered into cross currency swap contracts to manage its exposure to foreign exchange risk from recognised liabilities. Group Treasury is responsible for managing the net position in each foreign currency by using external forward currency contracts and other suitable financial instruments.

Transactions denominated in the USD mainly arise from the Group's operation in Hong Kong. Pursuant to Hong Kong's Linked Exchange Rate System under which HKD is pegged to the USD, management considers there are no significant foreign exchange risks with respect to the USD. Furthermore, there are no significant transactions and recognised assets and liabilities of the Thailand business in currency other than THB. Management considers there is no significant foreign exchange risk from the Thailand business.

At 31st December 2018, if the RMB had weakened/strengthened by 2 per cent (2017: 2 per cent) against HKD with all other variables held constant, pre-tax profit for the year would have been HK\$124.5 million (2017: HK\$93.8 million) lower/higher.

(ii) *Price risk*

The Group is exposed to equity securities price risk for the listed equity investments held by the Group which are classified as financial assets at FVOCI and financial assets at FVPL of HK\$348.3 million (2017: HK\$273.4 million) and HK\$264.1 million (2017: HK\$42.1 million) respectively.

The Group also held unlisted equity investments which are classified as FVPL of HK\$39.4 million (2017: HK\$39.6 million). The underlyings of the investments are listed equity securities, which making them subject to equity securities price risk.

It is the Group's policy to maintain a well-diversified portfolio of investments to minimise impact of price risk.

Majority of the Group's equity securities are publicly traded and are included in one of the following indexes: Hang Seng Index, S&P 500 Index and Euro Stoxx 50 Price Index.

3 Financial risk management (Continued)

Financial risk factors (Continued)

(a) Market risk (Continued)

(ii) Price risk (Continued)

The table below summarises the impact of increases/decreases of the following indexes on the Group's pre-tax profit for the year and on equity. The analysis is based on the assumption that the indexes had increased/decreased by 10 per cent with all other variables held constant and all the Group's equity securities moved according to the historical correlation with the indexes.

	Impact on pre-tax profit		Impact on equity	
	2018 HK\$'M	2017 HK\$'M	2018 HK\$'M	2017 HK\$'M
Hang Seng Index	26.8	2.5	9.2	10.7
S&P 500 Index	3.2	1.2	–	–
Euro Stoxx 50 Price Index	3.6	–	–	2.9

Pre-tax profit for the year would increase/decrease as a result of gains/losses on equity securities classified as at FVPL. Equity would increase/decrease as a result of gains/losses on equity securities classified as FVOCI.

(iii) Cash flow and fair value interest rate risk

Financial instruments at fixed and variable rates expose the Group to fair value interest rate risk and cash flow interest rate risk respectively. The Group's interest-bearing assets mainly comprise floating and fixed rate bank deposits of HK\$8,839.4 million (2017: HK\$12,829.6 million). The Group's interest bearing liabilities mainly comprises floating rate borrowings of HK\$18,339.9 million (2017: HK\$12,433.9 million), fixed rate borrowings of HK\$19,681.7 million (2017: HK\$24,484.9 million) and floating rate deposits received from customers of HK\$1,371.5 million (2017: HK\$1,331.6 million).

At 31st December 2018, if market interest rates on bank deposits are 100 basis points (2017: 100 basis points) higher/lower with all other variables held constant, pre-tax profit for the year would be HK\$48.6 million (2017: HK\$131.1 million) higher/lower, mainly as a result of higher/lower interest income on floating rate bank deposits.

At 31st December 2018, if market interest rates on borrowings and customers' deposits are 100 basis points (2017: 100 basis points) higher/lower with all other variables held constant, pre-tax profit for the year would be HK\$197.0 million (2017: HK\$143.6 million) lower/higher, mainly as a result of higher/lower interest expense on floating rate borrowings and customers' deposits.

(b) Credit risk

Credit risk of the Group mainly arises from:

	2018 HK\$'M	2017 HK\$'M
Cash and bank deposits	8,839.4	12,829.6
Debt securities	204.6	851.3
Trade receivables	3,563.5	3,734.5
Other receivables	2,470.9	2,118.5
Loan and other receivables from joint ventures	862.5	963.7
Loan and other receivables from associates	1,171.6	999.3
Loan and other receivables from non-controlling interests	155.0	103.1
Other non-current assets	2,706.3	2,603.8

3 Financial risk management (Continued)

Financial risk factors (Continued)

(b) Credit risk (Continued)

The Group has no significant concentrations of credit risk. The Group has credit policy to handle credit risk of customers. There is no significant concentration of sales to any individual customer. The top five largest customers account for less than 30 per cent of the total revenues. Furthermore, security deposits are required for gas customers. This also applies to the PRC joint ventures where there is no significant concentration of sales to any individual customer. Other non-current assets mainly represent aviation fuel facility construction receivable. Management considered that counter party default risk is low and there is no history of default in repayment. Debt securities and cash transactions counter parties are mostly with good credit rating of investment grade or above. The Group has policies that limit the amount of credit exposure to any one financial institution.

The Group monitors the exposure to credit risk in respect of the financial assistance provided to its joint ventures and associates through exercising control or influence over their financial and operating policy decisions and reviewing their financial positions on a regular basis.

The credit quality of financial assets can be assessed by reference to external credit ratings (if available) or to historical information about counterparty default rates is as follows:

	2018 %	2017 %
Cash and bank deposits		
AA	13.5	0.6
A	68.1	74.1
BBB	12.0	20.2
BB	1.4	1.5
Unrated	5.0	3.6
	100.0	100.0
Debt securities		
AA	8.0	5.7
A	39.4	68.7
BBB	11.5	–
Unrated	41.1	25.6
	100.0	100.0

Credit ratings are quoted from Bloomberg.

Credit quality of loan and other receivables from associates, loan and other receivables from joint ventures, other non-current assets and trade and other receivables are disclosed in notes 21, 22, 27 and 29 respectively to the consolidated financial statements. None of the financial assets that are fully performing has been renegotiated during the year.

The Group has three types of financial assets that are subject to the expected credit loss model, including trade receivables, other receivables and loan and other receivables from associates, joint ventures and non-controlling shareholders and debt investments carried at amortised cost and FVOCI. While cash and bank balances are also subject to the impairment requirements of HKFRS 9, the identified impairment loss was immaterial.

Trade receivables

The Group applies the HKFRS 9 simplified approach to measure expected credit losses which uses a lifetime expected loss allowance for all trade receivables.

3 Financial risk management (Continued)

Financial risk factors (Continued)

(b) Credit risk (Continued)

Trade receivables (Continued)

To measure the expected credit losses, trade receivables have been grouped based on shared credit risk characteristics and the days past due. The Group used expected loss rates ranging from 0% to 50% based on the aging for classes with different credit risk characteristics and exposures. The expected credit loss rates are estimated based on the historical credit losses experienced over the expected life of the debtors and are adjusted to reflect current and forward-looking information on macroeconomic factors affecting the ability of the customers to settle the receivables.

On that basis, the loss allowance as at 31st December 2018 and 1st January 2018 (on adoption of HKFRS 9) was determined as follows for trade receivables:

31st December 2018 HK\$'M	Current	1 – 30 days	31 – 60 days	61 – 90 days	Over 90 days	Total
Weighted average expected loss rate	0%	0%	0%	0%	49.9%	
Gross carrying amount – trade receivables	2,937.5	169.4	107.7	126.4	443.7	3,784.7
Loss allowance	–	–	–	–	221.2	221.2

1st January 2018 HK\$'M	Current	1 – 30 days	31 – 60 days	61 – 90 days	Over 90 days	Total
Weighted average expected loss rate	0%	0%	0%	0%	43.0%	
Gross carrying amount – trade receivables	3,053.5	240.0	119.0	41.5	468.3	3,922.3
Loss allowance	–	–	–	–	201.4	201.4

The closing loss allowances for trade receivables as at 31st December 2018 and 2017 reconcile to the opening loss allowances as follows:

	Trade receivables	
	2018 HK\$'M	2017 HK\$'M
At 31st December (calculated under HKAS 39)	187.8	134.4
Amounts restated through opening retained profits	13.6	–
Opening loss allowance as at 1st January 2018 (calculated under HKFRS 9)/ 1st January 2017 (calculated under HKAS 39)	201.4	134.4
Increase in loss allowance recognised in the profit or loss during the year	37.5	50.9
Receivables written off during the year as uncollectible	(6.8)	(2.0)
Unused amount reversed	(6.8)	–
Exchange differences	(4.1)	4.5
At 31st December	221.2	187.8

Trade receivables are written off when there is no reasonable expectation of recovery. Indicators that there is no reasonable expectation of recovery include, amongst others, the failure of a debtor to engage in a repayment plan with the Group, and a failure to make contractual payments for a period of greater than 90 days past due.

3 Financial risk management (Continued)

Financial risk factors (Continued)

(b) Credit risk (Continued)

Other receivables and loans and other receivables from associates, joint ventures and non-controlling shareholders

The loss allowance for other receivables and loans and other receivables from associates, joint ventures and non-controlling shareholders as a result of applying the expected credit risk model was immaterial.

Debt investments

All of the Group's debt investments at FVOCI are considered to have low credit risk, and the loss allowance recognised during the year was therefore limited to 12 months expected losses. Management consider 'low credit risk' for most of the listed bonds with an investment grade credit rating with at least one major rating agency. Other instruments are considered to be low credit risk when they have a low risk of default and the issuer has a strong capacity to meet its contractual cash flow obligations in the near term.

(c) Liquidity risk

Prudent liquidity risk management implies maintaining sufficient cash and marketable securities, the availability of funding through an adequate amount of credit facilities and the ability to close out market positions. Due to the dynamic nature of the underlying businesses, Group Treasury aims to maintain flexibility in funding by keeping adequate free cash and credit lines available.

The Group determines that there is no significant liquidity risk in view of the adequate and stable sources of funds and unutilised banking facilities.

The table below analyses the Group's major financial liabilities into relevant maturity groupings based on the remaining period at the date of statement of financial position to the contractual maturity date. The amounts disclosed in the table are the contractual undiscounted cash flows, except for derivative financial instruments. Balances due within 12 months equal their carrying balances, as the impact of discounting is not significant.

	Less than 1 year HK\$'M	Between 1 and 2 years HK\$'M	Between 2 and 5 years HK\$'M	Over 5 years HK\$'M
At 31st December 2018				
Trade and other payables	4,784.4	–	–	–
Loan and other payables to joint ventures	1,049.5	–	–	–
Loan and other payables to non-controlling shareholders	148.0	–	–	–
Borrowings	11,592.5	2,734.6	18,832.2	12,009.0
Derivative financial instruments	114.9	–	558.9	–
At 31st December 2017				
Trade and other payables	11,781.3	–	–	–
Loan and other payables to joint ventures	1,137.9	–	–	–
Loan and other payables to non-controlling shareholders	175.3	–	–	–
Borrowings	17,040.9	4,537.9	9,803.8	12,163.2
Derivative financial instruments	76.2	–	604.5	–

3 Financial risk management (Continued)

Financial risk factors (Continued)

(c) Liquidity risk (Continued)

The customers' deposits are not presented in the above liquidity analysis as management considers it is not practical to allocate the deposits into maturity groupings and the movement in customers' deposits is not significant based on past experience.

Capital risk management

The Group's objectives when 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.

In order to maintain or adjust the capital structure, the Group may adjust the amount of dividends paid to shareholders, return capital to shareholders, buy back existing shares, drawdown and repay borrowings, issue and redeem perpetual capital securities, issue new shares or sell assets to reduce debt.

The Group monitors capital on the basis of the gearing ratio. This ratio is calculated as net borrowing excluding redeemable perpetual securities divided by shareholders' funds plus perpetual capital securities and net borrowing. Net borrowing is calculated as total borrowings, less time deposits, cash and bank deposits as shown in the consolidated statement of financial position.

The gearing ratios at 31st December 2018 and 2017 are as follows:

	2018 HK\$'M	2017 HK\$'M
Total borrowings	(38,021.6)	(36,918.8)
Less: Time deposits, cash and bank deposits	8,839.4	12,829.6
Redeemable perpetual securities (note)	2,349.6	–
Net borrowing excluding redeemable perpetual securities	(26,832.6)	(24,089.2)
Shareholders' funds	(62,400.7)	(60,438.8)
Perpetual capital securities	–	(2,354.1)
Net borrowing (note)	(29,182.2)	(24,089.2)
	(91,582.9)	(86,882.1)
Gearing ratio	29%	28%

Note

For the purpose of providing a more meaningful gearing ratio analysis, management has reclassified the redeemable perpetual securities from total borrowings to equity, on the basis that the Group has refinanced the redeemable perpetual securities by issuing new perpetual capital securities in February 2019.

Fair value estimation

The Group's financial instruments are measured in the statement of financial position at fair value, this requires disclosure of fair value measurements by level of the following fair value measurement hierarchy:

- Quoted prices (unadjusted) in active markets for identical assets or liabilities (level 1).
- Inputs other than quoted prices included within level 1 that are observable for the asset or liability, either directly (that is, as prices) or indirectly (that is, derived from prices) (level 2).
- Inputs for the asset or liability that are not based on observable market data (that is, unobservable inputs) (level 3).

3 Financial risk management (Continued)

Fair value estimation (Continued)

The following table presents the Group's assets and liabilities that are measured at fair value at 31st December 2018 and 2017. See note 17 for disclosures of the investment properties that are measured at fair value.

HK\$'M	Level 1		Level 2		Level 3		Total	
	2018	2017	2018	2017	2018	2017	2018	2017
Assets								
Financial assets at FVPL								
– Equity securities	264.1	42.1	39.4	–	3,506.7	–	3,810.2	42.1
Derivative financial instruments	–	–	93.6	157.6	–	231.9	93.6	389.5
Financial assets at FVOCI								
– Debt securities	204.6	–	–	–	–	–	204.6	–
– Equity investment	348.3	–	–	–	574.1	–	922.4	–
Available-for-sale financial assets								
– Debt securities	–	461.8	–	–	–	–	–	461.8
– Equity investment	–	273.4	–	39.6	–	2,976.1	–	3,289.1
Total assets	817.0	777.3	133.0	197.2	4,080.8	3,208.0	5,030.8	4,182.5
Liabilities								
Other payables	–	–	–	–	154.0	154.0	154.0	154.0
Derivative financial instruments	–	–	673.8	680.7	–	–	673.8	680.7
Total liabilities	–	–	673.8	680.7	154.0	154.0	827.8	834.7

There are no changes in valuation techniques during the year.

The fair value of financial instruments traded in active markets is based on quoted market prices at the end of the reporting year. A market is regarded as active if quoted prices are readily and regularly available from an exchange, dealer, broker, industry group, pricing service, or regulatory agency, and those prices represent actual and regularly occurring market transactions on an arm's length basis. The quoted market price used for financial assets held by the Group is the current bid price. These instruments are included in level 1.

The fair value of financial instruments that are not traded in an active market (for example, over-the-counter derivatives) is determined by using valuation techniques. These valuation techniques maximise the use of observable market data where it is available and rely as little as possible on entity specific estimates. If all significant inputs required to fair value an instrument are observable, the instrument is included in level 2.

Specific valuation techniques used to value financial instruments include:

- Quoted market prices or dealer quotes for similar instruments.
- The fair value of cross currency swaps is calculated as the present value of the estimated future cash flows based on observable foreign exchange rates and yield curves.
- The fair value of interest rate swaps is calculated as the present value of the estimated future cash flows based on observable yield curves.
- The fair value of forward foreign exchange contracts is determined using forward exchange rates at the end of the reporting period, with the resulting value discounted back to present value.

3 Financial risk management (Continued)

Fair value estimation (Continued)

If one or more of the significant inputs is not based on observable market data, the instrument is included in level 3.

- Financial assets include a total of HK\$3.1 billion of an unlisted equity investment and its related derivative, which are considered entirely as FVPL. In respect of this unlisted equity investment, the fair value is determined based on the discounted cash flow model. The significant unobservable inputs include discount rate of 12.6 per cent, sales price, sales volume and expected free cash flows of the investee. The fair value decreases with the increase in the discount rate, and increases with the increase in the sales price, sales volume or expected free cash flows of the investee. In respect of the related derivative, the fair value is determined based on the binomial and black scholes models. The significant unobservable inputs, except for those included in the fair value of the unlisted equity investment, mainly include expected volatility of the fair value of the unlisted equity investment. The fair value increases with the increase in the volatility.
- Financial assets also include unlisted equity investments of HK\$0.4 billion, the fair values of which are determined based on the attributable net assets values or attributable net asset value after taking into account estimated fair value-to-book ratio and marketability discount. The significant unobservable input includes attributable net asset value and the estimated fair value-to-book ratio and marketability discount. The fair value increases with the increase in the attributable net asset values or fair value-to-book ratio or the decrease in the marketability discount.
- Financial liability represents contingent consideration which is generated from the further acquisition of a subsidiary in 2015 under other payables in level 3. The fair value is determined based on discounted cash flow model. The significant unobservable inputs include discount rate of 4.0 per cent and the rate of probability on the outflow of resources will be required to settle the obligation. The fair value decreases with the increase in the discount rate, and increases with the increase in the rate of probability.

The following table presents the changes in level 3 instruments for the year ended 31st December 2018 and 2017.

	Financial assets		Financial liability	
	2018 HK\$'M	2017 HK\$'M	2018 HK\$'M	2017 HK\$'M
At 1st January	4,150.4	3,057.4	154.0	154.0
Change in fair value	176.1	(77.8)	9.8	(11.3)
Exchange difference	(245.7)	228.4	(9.8)	11.3
At 31st December	4,080.8	3,208.0	154.0	154.0

The carrying amounts of financial assets and financial liabilities recorded at amortised cost in the consolidated financial statements approximate their fair values.

4 Critical accounting estimates and judgements

Estimates and judgements are continually evaluated by management and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances.

The Group makes estimates and assumptions concerning the future. The resulting accounting estimates will, by definition, seldom equal the related actual results. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are discussed below.

(a) Estimated impairment of assets

The Group tests annually whether goodwill has suffered any impairment, in accordance with the accounting policy stated in the consolidated financial statements note 2(k). Other assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of the assets exceeds its recoverable amount. The recoverable amounts of cash-generating units have been determined based on the higher of fair value less cost of disposal and value-in-use calculations. These value-in-use calculations require the use of estimates which includes the following key assumptions:

Discount rate

Discount rates reflect the current market assessments of the time value of money and are based on the estimated cost of capital. The discount rates are calculated based on the discount rate applicable to each cash generating unit adjusted for the relevant impact and timing of tax cash flows. The discount rates used ranged from 8.5 per cent to 11.3 per cent.

Selling price and production volume

The Group's management determines the budgeted selling price based on the expectation on the future trend of the prices of the products. The production volume was based on the production capacity and/or the management's expectation on market demand.

In respect to the Group's mining and oil properties in mainland China and Thailand respectively (under new energy business segment), the Group tested them for impairment by estimating the value-in-use of these projects as at 31st December 2018. The key assumptions adopted in the test were coal and oil reserves, future business growth, selling price, production volume, production costs and discount rate of 10 to 10.1 per cent. Based on the result of the tests, an impairment loss of HK\$200 million was recognised in the profit or loss for the year ended 31st December 2018. Assuming projected revenue decreased by 5 per cent and 3 per cent for mining and oil properties respectively or the discount rate increased by 100 basis point, the value-in-use calculated for each of these projects would not result in a further material loss to the Group.

(b) Property, plant and equipment

The Group's management determines the estimated useful lives and related depreciation charges for its property, plant and equipment. This estimate is based on the historical experience of the actual useful lives of the property, plant and equipment of similar nature and functions. It could change significantly as a result of technical innovation. Management will change the depreciation charge where useful lives are different from the previously estimated lives. It will also write-off or write down technically obsolete or non-strategic assets that have been abandoned or sold. For cost incurred and capitalised as property, plant and equipment, management assessed whether the Group has control over these assets based on relevant regulations and the terms as stipulated in the relevant agreements, where applicable.

4 Critical accounting estimates and judgements (Continued)

(c) Estimate of fair value of investment property

The valuation of investment properties (including those held by an associate) are performed in accordance with the “The HKIS Valuation Standards (2017 Edition)” published by the HKIS and the ‘International Valuation Standards’ published by the International Valuation Standards Committee. The valuation is reviewed annually by qualified valuers by considering the information from a variety of sources including:

- current prices in an active market for properties of different nature, condition or location, adjusted to reflect those differences;
- recent prices of similar properties in less active markets, with adjustments to reflect any changes in economic conditions since the date of the transactions that occurred at those prices; and
- rental income derived from the terms of any existing lease and other contracts, and (where possible) from external evidence such as current market rents for similar properties in the same location and condition, and using capitalisation rates that reflect current market assessments of the uncertainty in the amount and timing of the rental income.

If information on current or recent prices of investment properties is not available, the fair values of investment properties are mainly determined using income capitalisation valuation techniques. The Group uses assumptions that are mainly based on market conditions existing at each date of statement of financial position.

The principal assumptions underlying management’s estimation of fair value are those related to the capitalisation rate and market rentals. These valuations are regularly compared to actual market yield data, and actual transactions by the Group and those reported by the market.

(d) Estimate of gas and water consumption

Revenue for gas and water supply may include an estimation of the gas and water supplied to the customers of which actual meter reading is not available. The estimation is done mainly based on the past consumption records and recent consumption pattern of the customers. As of the year-end date, the overall billed gas and water sales are in line with the gas and water supplied to the customers.

(e) Recognition of gas connection income and allocation of transaction price

Critical judgements in recognising revenue

When gas connection income is recognised over time, the progress towards complete satisfaction of the performance obligation is measured using input method. Management are required to exercise significant judgement in their review and revision of the estimates of the total contract costs and actual costs incurred up to the end of the reporting period for each contract as the contract progresses, based on past experience and specific circumstances.

Critical judgements in allocating the transaction prices

Some gas connection contracts include an installation services. Because these contracts include multiple performance obligations, the transaction price must be allocated to the performance obligations on a relative stand-alone selling price basis.

Management estimates that the stand-alone selling price at contract inception based on expected cost plus a margin approach for installation services and residual approach for connection services.

(f) Reserve estimates

Reserves are estimates of the amount of product that can be economically and legally extracted from the Group’s mining and oil properties for coal mines in mainland China and oil concession in Thailand. In order to calculate reserves, estimates and assumptions are required about a range of geological, technical and economic factors, including quantities, grades, production techniques, recovery rates, production costs, transport costs, commodity demand and commodity prices.

4 Critical accounting estimates and judgements (Continued)

(f) Reserve estimates (Continued)

Estimating the quantity and/or grade of reserves requires the size, shape and depth of ore bodies or fields to be determined by analysing geological data such as drilling samples. This process may require complex and difficult geological judgements and calculations to interpret the data.

Because the economic assumptions used to estimate reserves changes from period to period, and because additional geological data is generated during the course of operations, estimates of reserves may change from period to period. Changes in reported reserves may affect the Group's financial results and financial position in a number of ways, including the following:

- Asset carrying values may be affected due to changes in estimated future cash flows.
- Depreciation charged in the profit or loss may change where such charges are determined by the units of production basis, or where the useful economic lives of assets change.
- Decommissioning, site restoration and environmental provisions may change where changes in estimated reserves affect expectations about the timing or cost of these activities.

(g) Estimate of fair value of equity investments

The fair value of financial assets that are not traded in an active market is determined by using valuation techniques. The Group uses its judgement to select a variety of methods (such as discounted cash flow model) and makes assumptions that are mainly based on market conditions existing at each date of statement of financial position. Details of the key assumptions used and the impact of changes to these assumptions are described in note 3.

5 Segment information

The Group's principal activities are the production, distribution and marketing of gas, water supply and emerging environmentally-friendly energy businesses ("New Energy") in Hong Kong and mainland China. The revenue comprises the following:

	2018 HK\$'M	2017 HK\$'M
Gas sales before fuel cost adjustment	27,922.4	22,865.8
Fuel cost adjustment	1,025.1	649.4
Gas sales after fuel cost adjustment	28,947.5	23,515.2
Connection income	3,292.7	2,922.2
Equipment sales and maintenance services	2,801.2	2,634.6
Water and related sales	1,365.8	1,249.7
Oil and coal related sales	1,338.2	989.0
Other sales	1,327.6	1,165.8
	39,073.0	32,476.5

5 Segment information (Continued)

The chief operating decision-maker has been identified as the executive committee members (the “ECM”) of the Company. The ECM reviews the Group’s internal reporting in order to assess performance and allocate resources. The ECM considers the business from both a product and geographical perspective. From a product perspective, management assesses the performance of (a) gas, water and related businesses; (b) New Energy and (c) property business. Gas, water and related businesses is further evaluated on a geographic basis (Hong Kong and mainland China).

The ECM assesses the performance of the operating segments based on a measure of adjusted profit before interest, tax, depreciation and amortisation (the “adjusted EBITDA”). Other information provided, except as noted below, to the ECM is measured in a manner consistent with that in the consolidated financial statements.

The segment information provided to the ECM for the reportable segments is as follows:

2018 HK\$'M	Gas, water and related businesses		New Energy	Property	Other segments	Total
	Hong Kong	Mainland China				
Revenue recognised at a point in time	10,081.7	23,974.6	2,715.5	–	270.2	37,042.0
Revenue recognised over time	–	1,016.8	–	–	553.8	1,570.6
Finance and rental income	–	–	394.3	66.1	–	460.4
	10,081.7	24,991.4	3,109.8	66.1	824.0	39,073.0
Adjusted EBITDA	4,769.2	5,673.4	945.8	41.6	137.8	11,567.8
Depreciation and amortisation	(747.4)	(1,302.6)	(354.7)	–	(109.8)	(2,514.5)
Unallocated expenses						(670.1)
						8,383.2
Other gains, net						20.0
Interest expense						(1,176.6)
Share of results of associates	–	951.5	32.4	2,599.2	6.4	3,589.5
Share of results of joint ventures	–	1,513.9	1.2	9.2	(0.9)	1,523.4
Profit before taxation						12,339.5
Taxation						(1,907.6)
Profit for the year						10,431.9

5 Segment information (Continued)

Share of results of associates includes HK\$2,030.0 million (2017: HK\$1,217.0 million) being the Group's share of change in valuation of investment properties at the International Finance Centre (the "IFC") complex for the year.

2017 HK\$'M	Gas, water and related businesses		New Energy	Property	Other segments	Total
	Hong Kong	Mainland China				
Revenue	9,386.1	19,680.2	2,658.5	66.3	685.4	32,476.5
Adjusted EBITDA	4,648.9	4,916.1	843.7	42.1	181.1	10,631.9
Depreciation and amortisation	(734.3)	(1,126.6)	(407.5)	–	(86.3)	(2,354.7)
Unallocated expenses						(645.9)
						7,631.3
Other gains, net						630.1
Interest expense						(1,256.9)
Share of results of associates	–	831.7	(0.9)	1,768.0	5.5	2,604.3
Share of results of joint ventures	–	1,479.6	1.0	9.0	(1.7)	1,487.9
Profit before taxation						11,096.7
Taxation						(1,749.8)
Profit for the year						9,346.9

The segment assets at 31st December 2018 and 2017 are as follows:

2018 HK\$'M	Gas, water and related businesses		New Energy	Property	Other segments	Total
	Hong Kong	Mainland China				
Segment assets	17,278.3	67,989.8	17,579.3	15,899.2	4,194.1	122,940.7
Unallocated assets:						
Financial assets at FVOCI						1,127.0
Financial assets at FVPL						3,810.2
Time deposits, cash and bank balances excluded from segment assets						3,973.1
Others (note)						842.1
Total assets						132,693.1

Note

Other unallocated assets mainly include other receivables other than those included under segment assets, derivative financial instruments and loan and other receivables from non-controlling shareholders.

5 Segment information (Continued)

2017 HK\$'M	Gas, water and related businesses		New Energy	Property	Other segments	Total
	Hong Kong	Mainland China				
Segment assets	17,335.7	65,453.5	17,898.4	13,924.8	3,897.5	118,509.9
Unallocated assets:						
Available-for-sale financial assets						4,289.9
Financial assets at FVPL						42.1
Time deposits, cash and bank balances excluded from segment assets						7,031.1
Others (note)						1,188.9
Total assets						131,061.9

The Company is domiciled in Hong Kong. The Group's revenue from external customers in Hong Kong for the year ended 31st December 2018 is HK\$11,521.5 million (2017: HK\$10,721.3 million), and the revenue from external customers in mainland China and other geographical locations is HK\$27,551.5 million (2017: HK\$21,755.2 million).

At 31st December 2018, the total of non-current assets other than financial instruments located in Hong Kong is HK\$30,437.3 million (2017: HK\$27,772.0 million), and the total of non-current assets other than financial instruments located in mainland China and other geographical locations is HK\$74,092.4 million (2017: HK\$71,760.5 million).

For the years ended 31st December 2018 and 2017, the percentage of revenues attributable to the Group's five largest customers is less than 30 per cent.

6 Total operating expenses

	2018 HK\$'M	2017 HK\$'M
Stores and materials used	20,597.9	15,691.9
Manpower costs (note 11)	3,295.1	3,034.9
Depreciation and amortisation	2,537.2	2,374.8
Other operating items	4,259.6	3,743.6
	30,689.8	24,845.2

7 Other gains, net

	2018 HK\$'M	2017 HK\$'M
Net investment gains (note 8)	230.0	729.7
Fair value gain on investment property (note 17)	12.5	33.6
Gain on deemed disposal of partial interest in associates	–	253.4
Gain on disposal of associates	–	23.8
Project research and development costs	(28.3)	(46.9)
Provision for assets	(200.0)	(365.1)
Ineffective portion on cash flow hedges	5.8	2.0
Others	–	(0.4)
	20.0	630.1

8 Net investment gains

	2018 HK\$'M	2017 HK\$'M
(a) Interest income		
Bank deposits	188.0	188.6
Listed financial assets at FVOCI	8.0	–
Listed available-for-sale financial assets	–	8.4
Loans to associates and joint ventures	90.1	41.8
Others	13.2	17.3
	299.3	256.1
(b) Net realised and unrealised gains/(losses) and interest income on financial assets at FVPL and derivative financial instruments		
Listed securities	(64.4)	10.3
Unlisted securities	148.6	(387.8)
Exchange differences	(1.2)	65.2
	83.0	(312.3)
(c) Net gains on FVOCI/available-for-sale financial assets		
Listed securities	–	276.6
Unlisted securities	–	(35.1)
Exchange differences	2.8	2.2
	2.8	243.7
(d) Dividend income		
Listed available-for-sale financial assets	–	58.0
Unlisted available-for-sale financial assets	–	128.9
Listed financial assets at FVPL	3.6	0.6
Listed financial assets at FVOCI	21.0	–
Unlisted financial assets at FVOCI	101.2	–
	125.8	187.5
(e) Exchange (losses)/gains	(280.9)	354.7
	230.0	729.7

9 Interest expense

	2018 HK\$'M	2017 HK\$'M
Interest on bank loans and overdrafts wholly repayable within five years	753.8	624.3
Interest on guaranteed notes wholly repayable within five years	413.3	565.9
Interest on guaranteed notes not wholly repayable within five years	326.3	304.3
	1,493.4	1,494.5
Less: amount capitalised	(316.8)	(237.6)
	1,176.6	1,256.9

The interest expense is capitalised at average rates from 1.35 per cent to 6.18 per cent (2017: 2.98 per cent to 6.42 per cent) per annum.

10 Profit before taxation

Profit before taxation is stated after charging and (crediting) the following:

	2018 HK\$'M	2017 HK\$'M
Cost of inventories sold	22,666.0	17,956.6
Depreciation and amortisation	2,537.2	2,374.8
(Gain)/loss on disposal/write off of property, plant and equipment	(1.2)	4.2
(Gain)/loss on disposal of leasehold land	(40.3)	0.3
Impairment loss of trade receivables	37.5	50.9
Impairment loss of available-for-sale financial assets	–	135.8
Operating lease rentals		
– land and buildings	146.5	126.3
– plant and equipment	13.8	12.3
Rental income from investment property		
– gross rental income	(66.1)	(66.3)
– outgoing expenses	24.2	23.9
Auditors' remuneration	27.6	26.7
Net loss on residential maintenance (note)	56.1	57.7
Note		
Analysis of net loss on residential maintenance:		
Residential maintenance revenue	(209.0)	(206.6)
Less expenses:		
Manpower costs	152.3	147.3
Other operating and administrative expenses	112.8	117.0
Net loss	56.1	57.7

11 Manpower costs

(a) Staff costs

	2018 HK\$'M	2017 HK\$'M
Salaries and wages	2,857.1	2,619.5
Pension costs – defined contribution retirement schemes	422.8	397.1
Pension costs – defined benefit retirement scheme (note 26)	15.2	18.3
	3,295.1	3,034.9

(b) Five highest paid individuals

The five individuals whose emoluments were the highest in the Group for the year include two (2017: two) directors whose emoluments are reflected in the analysis shown in note 12. Details of the emoluments payable to the remaining three (2017: three) individuals during the year are as follows:

	2018 HK\$'M	2017 HK\$'M
Fee, salaries, allowances and benefits in kind	9.1	8.8
Performance bonus	13.4	13.3
Contributions to retirement scheme	3.4	3.3
	25.9	25.4

Number of individuals whose emoluments fell within:

Emoluments band (HK\$'M)	2018	2017
10.0 – 11.0	1	1
9.0 – 10.0	–	–
8.0 – 9.0	1	1
7.0 – 8.0	–	–
6.0 – 7.0	1	1

(c) Emoluments of senior management

Senior management for the years ended 31st December 2018 and 2017 were all executive directors of the Company whose emoluments have been shown in note 12.

12 Benefits and interests of directors

(a) Directors' emoluments

Name of director	Emoluments paid or receivable in respect of a person's services as a director, whether of the Company or its subsidiary undertaking					Total HK\$'M
	Fees HK\$'M	Salary, allowances and benefits in kind HK\$'M	Performance bonus HK\$'M	Contributions to retirement scheme HK\$'M	Others HK\$'M	
2018						
Alfred Chan Wing-kin (Managing Director) (note (i))	0.4	6.4	25.0	6.0	–	37.8
Peter Wong Wai-yee (note (i))	0.4	4.6	8.7	2.6	–	16.3
Lee Shau-kee	0.7	0.3	–	–	–	1.0
Leung Hay-man	0.4	–	–	–	–	0.4
Colin Lam Ko-yin	0.3	0.1	–	–	–	0.4
Lee Ka-kit	0.3	–	–	–	–	0.3
Lee Ka-shing	0.3	–	–	–	–	0.3
David Li Kwok-po	0.7	–	–	–	–	0.7
Poon Chung-kwong	0.7	–	–	–	–	0.7
	4.2	11.4	33.7	8.6	–	57.9

Note

- (i) Mr. Alfred Chan Wing-kin and Mr. Peter Wong Wai-yee who are also directors of Towngas China Company Limited ("Towngas China"), a significant subsidiary of the Group. In this connection, the above emoluments included Mr. Alfred Chan Wing-kin and Mr. Peter Wong Wai-yee each received directors' emoluments from Towngas China of HK\$0.2 million and HK\$6.3 million (2017: HK\$0.2 million and HK\$6.0 million) respectively, and no share-based payments were received during the year and 2017.

12 Benefits and interests of directors (Continued)

(a) Directors' emoluments (Continued)

Name of director	Emoluments paid or receivable in respect of a person's services as a director, whether of the Company or its subsidiary undertaking					Total HK\$'M
	Fees HK\$'M	Salary, allowances and benefits in kind HK\$'M	Performance bonus HK\$'M	Contributions to retirement scheme HK\$'M	Others HK\$'M	
2017						
Alfred Chan Wing-kin (Managing Director) (note (i))	0.4	6.0	25.7	5.7	–	37.8
Peter Wong Wai-yee (note (i))	0.4	4.4	8.4	2.4	–	15.6
Lee Shau-kee	0.7	0.3	–	–	–	1.0
Leung Hay-man	0.5	–	–	–	–	0.5
Colin Lam Ko-yin	0.3	0.1	–	–	–	0.4
Lee Ka-kit	0.3	–	–	–	–	0.3
Lee Ka-shing	0.3	–	–	–	–	0.3
David Li Kwok-po	0.7	–	–	–	–	0.7
Poon Chung-kwong	0.7	–	–	–	–	0.7
	4.3	10.8	34.1	8.1	–	57.3

The above remuneration paid to directors of the Company also represents the amount of short-term employee benefits of HK\$49.3 million (2017: HK\$49.2 million) and post-employment benefits of HK\$8.6 million (2017: HK\$8.1 million) paid to the Group's senior management during the year ended 31st December 2018. There were no other long-term benefits, termination benefits and share-based payment paid to the Group's senior management during the year (2017: nil).

(b) Directors' material interests in transactions, arrangements or contracts

No significant transactions, arrangements or contracts in relation to the Group's business to which the Company was a party, and in which a director of the Company had a material interest, whether directly or indirectly, subsisted at the end of the year or at any time during the year.

13 Taxation

The amount of taxation charged to the profit or loss represents:

	2018 HK\$'M	2017 HK\$'M
Current taxation – provision for Hong Kong Profits Tax at the rate of 16.5% (2017: 16.5%) on the estimated assessable profits for the year	713.6	727.5
Current taxation – provision for other countries income tax at the prevailing rates on the estimated assessable profits for the year (note (a))	822.0	707.1
Current taxation – over provision in prior years	(4.5)	(94.4)
Deferred taxation – origination and reversal of temporary differences	287.5	290.5
Withholding tax	89.0	119.1
	1,907.6	1,749.8

13 Taxation (Continued)

Note

- (a) The prevailing tax rates of mainland China and Thailand range from 15 per cent to 25 per cent (2017: 15 per cent to 25 per cent) and 50 per cent (2017: 50 per cent) respectively.

The taxation on the Group's profit before taxation differs from the theoretical amount that would arise using the taxation rate of Hong Kong as follows:

	2018 HK\$'M	2017 HK\$'M
Profit before taxation	12,339.5	11,096.7
Less: Share of results of associates	(3,589.5)	(2,604.3)
Share of results of joint ventures	(1,523.4)	(1,487.9)
	7,226.6	7,004.5
Calculated at a tax rate of 16.5% (2017: 16.5%)	1,192.4	1,155.7
Effect of different tax rates in other countries	359.7	319.5
Income not subject to taxation	(138.7)	(206.5)
Expenses not deductible for taxation purposes	350.8	378.7
Utilisation of previously unrecognised tax losses	(29.7)	(31.9)
Over provision in prior years	(4.5)	(94.4)
Withholding tax	89.0	119.1
Others	88.6	109.6
	1,907.6	1,749.8

Share of associates' taxation for the year ended 31st December 2018 of HK\$463.6 million (2017: HK\$399.3 million) is included in the profit or loss as share of results of associates.

Share of joint ventures' taxation for the year ended 31st December 2018 of HK\$614.8 million (2017: HK\$577.2 million) is included in the profit or loss as share of results of joint ventures.

14 Dividends

	2018 HK\$'M	2017 HK\$'M
Interim, paid of HK12 cents per ordinary share (2017: HK12 cents per ordinary share)	1,846.4	1,678.5
Final, proposed of HK23 cents per ordinary share (2017: HK23 cents per ordinary share)	3,538.9	3,217.2
	5,385.3	4,895.7

At a meeting held on 20th March 2019, the directors of the Company declared a final dividend of HK23 cents per ordinary share for the year ended 31st December 2018. This proposed dividend is not reflected as a dividend payable in these consolidated financial statements, but will be reflected as an appropriation of retained earnings for the year ended 31st December 2018.

15 Earnings per share

The calculation of basic earnings per share is based on the profit attributable to shareholders of HK\$9,312.8 million (2017: HK\$8,225.3 million) and the weighted average of 15,386,411,131 shares (2017: 15,386,661,131 shares ¹) in issue during the year.

As there were no diluted potential ordinary shares outstanding during the year (2017: nil), the diluted earnings per share for the year ended 31st December 2018 is the same as the basic earnings per share.

¹ Adjusted for the bonus share issue in 2018

16 Property, plant and equipment

	Buildings, plant and equipment HK\$'M	Mains and risers HK\$'M	Meters and installations HK\$'M	Mining and oil properties HK\$'M	Others HK\$'M	Capital work in progress HK\$'M	Total HK\$'M
Cost							
At 1st January 2018	20,342.7	36,025.6	3,777.9	4,215.5	931.9	10,845.1	76,138.7
Additions	1,208.5	864.9	300.0	41.5	35.7	4,660.5	7,111.1
Acquisition of businesses (note 42 (a) & (b))	0.9	–	–	–	–	39.6	40.5
Transfers from capital work in progress	1,811.5	2,618.5	5.7	5.7	6.9	(4,448.3)	–
Disposals/write off	(180.4)	(64.9)	(84.7)	(4.9)	–	(1.5)	(336.4)
Impairment	–	–	–	(200.0)	–	–	(200.0)
Exchange differences	(797.8)	(1,400.3)	(5.9)	(16.6)	(48.3)	(412.6)	(2,681.5)
At 31st December 2018	22,385.4	38,043.8	3,993.0	4,041.2	926.2	10,682.8	80,072.4
Accumulated depreciation							
At 1st January 2018	8,323.8	8,475.3	2,496.8	856.4	159.0	–	20,311.3
Charge for the year	1,061.9	1,035.6	283.7	86.9	22.5	–	2,490.6
Disposals/write off	(120.1)	(14.8)	(65.4)	(0.9)	–	–	(201.2)
Exchange differences	(246.7)	(248.0)	(3.9)	2.0	(10.5)	–	(507.1)
At 31st December 2018	9,018.9	9,248.1	2,711.2	944.4	171.0	–	22,093.6
Net book value							
At 31st December 2018	13,366.5	28,795.7	1,281.8	3,096.8	755.2	10,682.8	57,978.8
At 31st December 2017	12,018.9	27,550.3	1,281.1	3,359.1	772.9	10,845.1	55,827.4

16 Property, plant and equipment (Continued)

	Buildings, plant and equipment HK\$'M	Mains and risers HK\$'M	Meters and installations HK\$'M	Mining and oil properties HK\$'M	Others HK\$'M	Capital work in progress HK\$'M	Total HK\$'M
Cost							
At 1st January 2017	18,307.2	31,848.8	3,485.4	3,986.9	837.2	8,288.3	66,753.8
Additions	730.4	441.7	368.2	66.4	27.5	4,579.3	6,213.5
Acquisition of businesses	39.6	10.3	–	–	–	22.0	71.9
Transfers from capital work in progress	464.6	2,081.9	0.4	–	3.9	(2,550.8)	–
Disposals/write off	(143.8)	(14.2)	(83.7)	(0.8)	–	–	(242.5)
Impairment	–	–	–	(313.6)	–	–	(313.6)
Exchange differences	944.7	1,657.1	7.6	476.6	63.3	506.3	3,655.6
At 31st December 2017	20,342.7	36,025.6	3,777.9	4,215.5	931.9	10,845.1	76,138.7
Accumulated depreciation							
At 1st January 2017	7,201.8	7,305.9	2,283.6	636.5	116.4	–	17,544.2
Charge for the year	964.7	890.2	270.6	149.9	30.8	–	2,306.2
Disposals/write off	(109.4)	(3.5)	(62.3)	(0.1)	–	–	(175.3)
Exchange differences	266.7	282.7	4.9	70.1	11.8	–	636.2
At 31st December 2017	8,323.8	8,475.3	2,496.8	856.4	159.0	–	20,311.3
Net book value							
At 31st December 2017	12,018.9	27,550.3	1,281.1	3,359.1	772.9	10,845.1	55,827.4
At 31st December 2016	11,105.4	24,542.9	1,201.8	3,350.4	720.8	8,288.3	49,209.6

17 Investment property

	2018 HK\$'M	2017 HK\$'M
At 1st January	764.0	729.0
Fair value gain (note 7)	12.5	33.6
Others	1.5	1.4
At 31st December	778.0	764.0

The Group's interest in the commercial investment property is located in Hong Kong under a land lease of over 50 years. The investment property was revalued at 31st December 2018 by an independent professionally qualified valuer, Knight Frank Petty Limited which conform to the The HKIS Valuation Standards (2017 Edition) shown in note 2(i).

17 Investment property (Continued)

Fair value measurements using significant unobservable inputs

Fair value of completed commercial property in Hong Kong is generally derived using the income capitalisation method. This valuation method is based on the capitalisation of the net income and reversionary income potential by adopting appropriate capitalisation rates, which are derived from analysis of sale transactions and valuer's interpretation of prevailing investor requirements or expectations. The prevailing market rents adopted in the valuation have reference to valuer's view of recent lettings, within the subject properties and other comparable properties.

Information about fair value measurements using significant unobservable inputs is as follows:

Unobservable inputs	Commercial complex	Car park	Relationship of unobservable inputs to fair value
Capitalisation rate	5.4%	8.75%	The higher the capitalisation rate, the lower the fair value
Monthly rent	HK\$19.2 /sq.ft.	N/A	The higher the market rent, the higher the fair value

Valuation processes of the Group

The Group's finance division includes a team that review and analyse the valuation performed by the independent valuer for financial reporting purposes. At each financial year end the finance division:

- Verifies all major inputs to the independent valuation report;
- Assesses property valuation movements when compared with the prior year valuation report;
- Holds discussions with the independent valuer.

18 Leasehold land

The Group's interests in leasehold land and land use rights movements during the year are analysed as follows:

	2018 HK\$'M	2017 HK\$'M
At 1st January	2,229.3	2,016.6
Additions	179.0	136.4
Acquisition of businesses	-	12.1
Disposals	(25.7)	(8.0)
Amortisation	(62.0)	(59.6)
Exchange differences	(106.1)	131.8
At 31st December	2,214.5	2,229.3

19 Intangible assets

	2018 HK\$'M	2017 HK\$'M
(a) Goodwill		
At 1st January	5,443.3	5,146.1
Acquisition of businesses (note 42 (a) & (b))	5.9	74.0
Exchange differences	(168.7)	223.2
At 31st December	5,280.5	5,443.3
(b) Other intangible asset		
Cost		
At 1st January	527.7	492.5
Addition	–	4.2
Exchange differences	(22.8)	31.0
At 31st December	504.9	527.7
Accumulated amortisation		
At 1st January	(87.4)	(66.2)
Amortisation	(18.0)	(17.5)
Exchange differences	2.1	(3.7)
At 31st December	(103.3)	(87.4)
Net book value		
At 31st December	401.6	440.3
Total intangible assets	5,682.1	5,883.6

Goodwill is allocated to cash-generating units that are expected to benefit from the business combination in which the goodwill arose, majority related to segment - gas, water and related businesses in mainland China. The goodwill balance included HK\$2,242.0 million (2017: HK\$2,242.0 million) related to the Group's investments in Towngas China. The Group tests goodwill annually for impairment, or more frequently if there are indications that it might be impaired. For the purpose of impairment test, the recoverable amount of the cash-generating units is determined based on either fair value less costs of disposal or value-in-use calculations. The fair value less costs of disposal is by referencing to active market information. The value-in-use calculations are derived from cash flow projections based on the most recent financial budget for the next five years approved by management. Cash flows beyond five year period have been extrapolated using growth rates from 0.0 per cent to 10.0 per cent (2017: 0.0 per cent to 10.0 per cent) per annum which are determined by considering both internal and external factors relating to the cash-generating units. Discount rate used of 8.5 per cent or 10.0 per cent (2017: 8.5 per cent or 10.0 per cent) is adopted to reflect specific risks relating to the relevant cash-generating units. Based on impairment tests prepared, there is no impairment for intangible assets as at 31st December 2018 and 2017.

Assuming growth rate decreased by 25 basis points or discount rate increased by 25 basis points, there is still adequate headroom and no impairment charge is required.

20 Subsidiaries

Material non-controlling interests

The total non-controlling interest as at 31st December 2018 is HK\$7,792.6 million (2017: HK\$7,453.0 million) of which HK\$5,662.4 million (2017: HK\$5,336.0 million) is attributable to Towngas China and for the non-controlling interest in respect of other individual subsidiaries of the Group is not material.

Set out below are the summarised financial information of Towngas China. The information below is the amount before inter-company eliminations.

Summarised statement of financial position	Towngas China	
	2018 HK\$'M	2017 HK\$'M
Assets		
Non-current assets	25,962.2	24,918.8
Current assets	4,499.0	4,182.1
	30,461.2	29,100.9
Liabilities		
Non-current liabilities	(8,118.5)	(6,332.7)
Current liabilities	(8,138.1)	(9,308.5)
	(16,256.6)	(15,641.2)
Net assets	14,204.6	13,459.7

Summarised income statement and comprehensive income statement	Towngas China	
	2018 HK\$'M	2017 HK\$'M
Revenue	11,787.0	8,759.8
Profit before taxation	1,892.1	1,917.7
Taxation	(479.0)	(405.4)
Profit for the year	1,413.1	1,512.3
Other comprehensive (loss)/income	(912.3)	1,087.0
Total comprehensive income	500.8	2,599.3
Total comprehensive income attributable to non-controlling interests	64.1	204.3
Dividend paid to non-controlling shareholders	91.2	99.4

20 Subsidiaries (Continued)

	Towngas China	
	2018 HK\$'M	2017 HK\$'M
Summarised cash flows statement		
Net cash generated from operating activities	1,284.4	1,514.8
Net cash used in investing activities	(2,142.9)	(1,880.0)
Net cash inflow from financing activities	967.5	519.8
Net increase in cash and cash equivalents	109.0	154.6
Cash and cash equivalents at beginning of year	1,605.3	1,351.1
Effect of foreign exchange rate changes	(102.8)	99.6
Cash and cash equivalents at end of year	1,611.5	1,605.3

21 Associates

	2018 HK\$'M	2017 HK\$'M
Investments in associates, including goodwill	25,499.4	22,635.5
Loans to associates – non-current	814.7	757.9
	26,314.1	23,393.4
Loan and other receivables from associates – current	356.9	241.4
Fair value of listed investments	10,712.5	14,055.4

Loan and other receivables from associates are analysed below:

- (i) Loans to associates in mainland China of HK\$1,107.1 million (2017: HK\$983.9 million) with effective interest rates ranging from 4.35 per cent to 7.20 per cent per annum (2017: 4.35 per cent to 7.20 per cent per annum) are unsecured and fully repayable in 2019 to 2020 (2017: 2018 to 2019).
- (ii) The remaining balances are unsecured, interest free and have no fixed terms of repayment.
- (iii) Loan and other receivables from associates are considered to have low credit risk and the loss allowance recognised (if any) was therefore limited to 12 month expected credit loss.
- (iv) Loan and other receivables are denominated in the following currencies:

	2018 HK\$'M	2017 HK\$'M
USD	560.1	501.2
RMB	609.1	495.2
HKD	2.4	2.9
	1,171.6	999.3

21 Associates (Continued)

Particulars of the principal associates as at 31st December 2018 are listed below:

Name	Note	Issued share capital/ registered capital	Percentage of the Group's equity interest	Place of incorporation/ operation	Principal activity
China-Singapore Suzhou Industrial Park Broad Energy Services Co., Ltd.		RMB71.1 million	25	PRC	Cooling and heating system business
Hainan Petrochina Kunlun Hong Kong & China Gas Co., Ltd.		RMB50.4 million	49	PRC	Gas sales and related businesses
Shenzhen Gas Corporation Limited		RMB2,877.8 million	26.5	PRC	Gas sales and related businesses
港華儲氣有限公司	(ii)	RMB100 million	64	PRC	Gas storage project
Central Waterfront Property Investment Holdings Limited	(i)	US\$100	15.8	British Virgin Islands	Investment holding
GH-Fusion Limited	(ii)	US\$200	50	British Virgin Islands	Investment holding
江蘇海企港華燃氣股份有限公司		RMB216.7 million	32.9	PRC	LNG refilling station for vessels
Hangzhou Natural Gas Company Limited		RMB1,195.0 million	24	PRC	Mid-stream natural gas and piped city-gas project
Anhui Province Natural Gas Development Company Limited		RMB336.0 million	20.6	PRC	Mid-stream natural gas project
Hebei Natural Gas Company Limited		RMB920.0 million	43	PRC	Mid-stream natural gas project
河南省中原石油天然氣管網有限公司		RMB60.0 million	49	PRC	Mid-stream natural gas project
¹ 河北金建佳天然氣有限公司		RMB90.0 million	20	PRC	LNG receiving terminal; pier
^{#2} Foshan Water Environmental Protection Co., Ltd		RMB824.3 million	26	PRC	Water project
Towngas DETA Telecom (Dalian) Co., Ltd.		RMB10.0 million	49	PRC	Telecommunications business
中經名氣網絡技術(北京)有限公司		RMB10.0 million	49	PRC	Telecommunications business

¹ Newly formed during the year

² Newly acquired during the year

[#] Direct associate of the Company

Notes

- (i) The Group has an effective interest of approximately 15.8 per cent in the IFC complex through its interest in Central Waterfront Property Investment Holdings Limited ("CWPI"). With the Group's presence on the board of directors of CWPI and participation in the financial and operating policies of the IFC complex, the Group could exercise significant influence over CWPI and accordingly the investment is accounted for as an associate.
- (ii) The Group can only exercise significant influence over the board of directors in the associates.

21 Associates (Continued)

Particulars of the principal associates as at 31st December 2018 are listed below: (Continued)

Name	Issued share capital/ registered capital	Percentage of the Group's equity interest	Place of incorporation/ operation	Principal activity
Shanxi Yuanping Guoxin Compressed Natural Gas Co., Ltd.	RMB20.0 million	42	PRC	Vehicular fuel refilling station
China-Singapore Suzhou Industrial Park Environmental Technology Co., Ltd.	RMB185.0 million	49	PRC	Water treatment project
Held by Towngas China Company Limited (TCCL) and the respective equity interest held by TCCL is shown accordingly.				
Changchun Gas Co., Ltd.	RMB609.0 million	28.2	PRC	Gas sales and related businesses
Dalian DETA Hong Kong and China Gas Co., Ltd.	RMB137.2 million	40	PRC	Gas sales and related businesses
Foshan Gas Group Co., Ltd.	RMB500.0 million	38.7	PRC	Gas sales and related businesses
撫州市撫北天然氣有限公司	RMB16.0 million	40	PRC	Gas sales and related businesses
臨朐港華燃氣有限公司	US\$5.7 million	42.4	PRC	Gas sales and related businesses
Shandong Jihua Gas Co., Ltd.	RMB400.0 million	49	PRC	Gas sales and related businesses
石家莊華博燃氣有限公司	RMB45.0 million	45	PRC	Gas sales and related businesses
Zibo Lubo Gas Company Limited	RMB100.0 million	27	PRC	Gas sales and related businesses
Anhui Province Wenery Towngas Natural Gas Company Limited	RMB240.0 million	49	PRC	Mid-stream natural gas project
四川能投分布式能源有限公司	RMB500.0 million	25	PRC	Distributed energy systems businesses

The following amounts represent the Group's share of income and results of the associates and are included in the consolidated income statement and statement of comprehensive income:

	2018 HK\$'M	2017 HK\$'M
Income	17,049.9	13,166.4
Expenses, including taxation	(13,460.4)	(10,562.1)
Profit after taxation	3,589.5	2,604.3
Other comprehensive income/(loss)	3.6	(2.9)
Total comprehensive income	3,593.1	2,601.4

21 Associates (Continued)

Set out below are the summarised financial information of CWPI which is considered to be the only material associate in the Group and it is accounted for using the equity method. CWPI holds IFC complex as the commercial investment property for rental income in Hong Kong.

Summarised statement of financial position	CWPI	
	2018 HK\$'M	2017 HK\$'M
Assets		
Non-current assets	115,205.6	102,367.8
Current assets	582.3	770.6
	115,787.9	103,138.4
Liabilities		
Non-current liabilities	(18,371.1)	(18,345.7)
Current liabilities	(2,199.7)	(2,140.8)
	(20,570.8)	(20,486.5)
Net assets	95,217.1	82,651.9

Summarised income statement and statement of comprehensive income	CWPI	
	2018 HK\$'M	2017 HK\$'M
Income	19,373.9	13,902.0
Expenses, including taxation	(2,911.8)	(2,705.1)
Profit after taxation	16,462.1	11,196.9
Other comprehensive income/(loss)	23.1	(18.6)
Total comprehensive income	16,485.2	11,178.3
Share of total comprehensive income (15.79%)	2,603.0	1,765.1
Dividend received from the associate	619.0	584.2

The information above reflects the amounts presented in the financial statements of the associate adjusted for differences in accounting policies between the Group and the associate.

Reconciliation of the summarised financial information presented to the carrying amount of its interest in the associate:

Net assets	CWPI	
	2018 HK\$'M	2017 HK\$'M
At 1st January	82,651.9	75,173.6
Profit for the year	16,462.1	11,196.9
Other comprehensive income/(loss)	23.1	(18.6)
Dividend paid	(3,920.0)	(3,700.0)
At 31st December	95,217.1	82,651.9

21 Associates (Continued)

	2018 HK\$'M	2017 HK\$'M
Carrying value		
Interest in an associate (15.79%)	15,034.8	13,050.7

22 Joint ventures

	2018 HK\$'M	2017 HK\$'M
Investments in joint ventures, including goodwill	10,910.4	10,865.2
Loans to joint ventures – non-current	39.9	24.0
	10,950.3	10,889.2
Loan and other receivables from joint ventures – current	822.6	939.7
Loan and other payable to joint ventures – current	(1,049.5)	(1,137.9)

Loan and other receivables from joint ventures are analysed below:

- (i) Loans to joint ventures in mainland China of HK\$466.1 million (2017: HK\$444.7 million) with effective interest rates ranging from 4.35 per cent to 5.88 per cent per annum (2017: 4.35 per cent to 4.75 per cent per annum) are unsecured and fully repayable in 2019 to 2020 (2017: 2018 to 2019).
- (ii) Loan to a joint venture in Hong Kong of HK\$62.0 million (2017: HK\$79.0 million) is unsecured, interest free and has no fixed terms of repayment.
- (iii) The remaining balances are unsecured, interest free and with no fixed terms of repayment.
- (iv) Loan and other receivables from joint ventures are considered to have low credit risk and the loss allowance recognised (if any) was therefore limited to 12-month expected credit loss.
- (v) Loans and other receivables are denominated in the following currencies:

	2018 HK\$'M	2017 HK\$'M
RMB	786.2	877.8
HKD	76.3	85.9
	862.5	963.7

Amounts due to joint ventures are analysed below:

- (i) Loan from a joint venture of HK\$533.5 million (2017: HK\$487.4 million) with effective interest rate of 4.44 per cent per annum (2017: 4.44 per cent per annum) is unsecured and repayable in 2019.
- (ii) Loans from joint ventures of HK\$516.0 million (2017: HK\$648.1 million) with effective interest rate of 2.78 – 2.785 per cent per annum (2017: 2.57 per cent per annum) are unsecured and have no fixed terms of repayment.
- (iii) The remaining balances are unsecured, interest free and with no fixed terms of repayment.
- (iv) Loan and other payables to joint ventures are denominated in RMB (2017: denominated in RMB).

22 Joint ventures (Continued)

Particulars of the principal joint ventures as at 31st December 2018 are listed below:

Name	Note	Issued share capital/ registered capital	Percentage of the Group's equity interest	Place of incorporation/ operation	Principal activity
Hua Yan Environmental Industry Development (Suzhou) Co., Ltd.	(i)	RMB75.0 million	55	PRC	Food and green waste treatment project
# Beijing Beiran & HKCG Gas Company Limited		RMB44.4 million	49	PRC	Gas sales and related businesses
Changzhou Hong Kong and China Gas Company Limited		RMB166.0 million	50	PRC	Gas sales and related businesses
Jinan Hong Kong and China Gas Company Limited		RMB470.0 million	49	PRC	Gas sales and related businesses
Nanjing Hong Kong and China Gas Company Limited		RMB700.0 million	49	PRC	Gas sales and related businesses
Suzhou Hong Kong and China Gas Company Limited	(i)	RMB200.0 million	55	PRC	Gas sales and related businesses
# Tongling Hong Kong and China Gas Company Limited	(i)	RMB100.0 million	70	PRC	Gas sales and related businesses
Wuhan Natural Gas Company Limited		RMB420.0 million	49	PRC	Gas sales and related businesses
# Xian Qinhu Natural Gas Company Limited		RMB1,000.0 million	49	PRC	Gas sales and related businesses
Zhangjiagang Hong Kong and China Gas Company Limited		RMB100.0 million	50	PRC	Gas sales and related businesses
Jilin Province Natural Gas Limited Company		RMB220.0 million	49	PRC	Mid-stream natural gas project
Yieldway International Limited		HK\$2.0	50	Hong Kong	Property development
Maanshan ECO Auto Fuel Company Limited		RMB10.5 million	30	PRC	Vehicular fuel refilling station
Suzhou Industrial Park Qingyuan Hong Kong & China Water Company Limited		RMB1,200.0 million	50	PRC	Water supply and sewage treatment

Direct joint ventures of the Company

Note

(i) The Group can only exercise joint control over the board of directors in the joint ventures.

22 Joint ventures (Continued)

Particulars of the principal joint ventures as at 31st December 2018 are listed below: (Continued)

Name	Issued share capital/ registered capital	Percentage of the Group's equity interest	Place of incorporation/ operation	Principal activity
Held by Towngas China Company Limited (TCCL) and the respective equity interest held by TCCL is shown accordingly.				
Anqing Hong Kong and China Gas Company Limited	RMB73.0 million	50	PRC	Gas sales and related businesses
重慶港華燃氣有限公司	RMB20.0 million	50	PRC	Gas sales and related businesses
Hangzhou Hong Kong and China Gas Company Limited	US\$20.0 million	50	PRC	Gas sales and related businesses
Maanshan Hong Kong and China Gas Company Limited	US\$13.0 million	50	PRC	Gas sales and related businesses
Taian Taishan Hong Kong and China Gas Company Limited	RMB80.0 million	49	PRC	Gas sales and related businesses
Weifang Hong Kong and China Gas Company Limited	US\$16.9 million	50	PRC	Gas sales and related businesses
Weihai Hong Kong and China Gas Company Limited	RMB99.2 million	50	PRC	Gas sales and related businesses
Wuhu Hong Kong & China Gas Company Limited	RMB52.8 million	50	PRC	Gas sales and related businesses
Zibo Hong Kong and China Gas Company Limited	RMB100.0 million	50	PRC	Gas sales and related businesses
泰安市泰港燃氣有限公司	RMB139.2 million	49	PRC	Mid-stream natural gas project

The following amounts represent the Group's share of income and results of the joint ventures and are included in the consolidated income statement and statement of comprehensive income:

	2018 HK\$'M	2017 HK\$'M
Income	15,031.7	12,365.4
Expenses, including taxation	(13,508.3)	(10,877.5)
Profit after taxation and total comprehensive income	1,523.4	1,487.9

No individual joint ventures are considered to be material in the Group.

23 Financial assets at fair value through other comprehensive income/ Available-for-sale financial assets

	2018 HK\$'M	2017 HK\$'M
Debt securities (Note (a))	204.6	461.8
Equity securities (Note (b))	922.4	3,828.1
	1,127.0	4,289.9

Notes

	2018 HK\$'M	2017 HK\$'M
(a) Debt securities		
Listed – Hong Kong	84.0	165.6
Listed – overseas	120.6	296.2
	204.6	461.8

	2018 HK\$'M	2017 HK\$'M
(b) Equity securities		
Listed – Hong Kong	216.8	208.4
Listed – overseas	131.5	65.0
Unlisted	574.1	3,554.7
	922.4	3,828.1

Included in the equity securities, there are HK\$157.5 million of perpetual bonds and HK\$764.9 million of investments that are engaged in the provision of natural gas and related services and gas pipeline construction services. These are strategic investments and the Group considers the classification of FVOCI to be more relevant.

- (c) Financial assets at FVOCI/Available-for-sale financial assets are denominated in the following currencies:

	2018 HK\$'M	2017 HK\$'M
RMB	617.9	3,580.1
HKD	147.0	208.4
USD	362.1	501.4
	1,127.0	4,289.9

24 Financial assets at fair value through profit or loss

	2018 HK\$'M	2017 HK\$'M
Equity securities (note (a))		
Current	303.5	42.1
Non-current	3,506.7	–
	3,810.2	42.1

Notes

	2018 HK\$'M	2017 HK\$'M
(a) Equity securities		
Listed – Hong Kong	232.6	30.0
Listed – overseas	31.5	12.1
Unlisted	3,546.1	–
	3,810.2	42.1

Financial assets at FVPL are denominated in the following currencies:

	2018 HK\$'M	2017 HK\$'M
HKD	232.6	30.0
USD	70.9	12.1
RMB	3,506.7	–
	3,810.2	42.1

25 Derivative financial instruments

	2018		2017	
	Assets HK\$'M	Liabilities HK\$'M	Assets HK\$'M	Liabilities HK\$'M
Non-current				
Cross currency swap and interest rate swap contracts – cash flow hedges	27.9	(558.9)	19.2	(475.7)
Foreign currency forward contracts – held-for-trading	–	–	1.5	(90.1)
Cross currency swap contracts – held-for-trading	22.1	–	17.3	(38.7)
Related derivative of available-for-sale financial asset	–	–	231.9	–
Interest rate swap contracts – held-for-trading	5.4	–	–	–
	55.4	(558.9)	269.9	(604.5)
Current				
Cross currency swap and interest rate swap contracts – cash flow hedges	37.2	(50.6)	114.5	–
Foreign currency forward contracts – held-for-trading	1.0	(64.3)	5.1	(76.2)
	38.2	(114.9)	119.6	(76.2)

The fair value of hedging derivatives is classified as current assets or liabilities when the remaining maturity of the hedged item is less than 12 months.

The fair values of hedging derivatives are classified as non-current assets or liabilities when the remaining maturity of the hedged items is more than 12 months.

Hedge ineffectiveness

Hedge effectiveness is determined at the inception of the hedge relationship, and through periodic prospective effectiveness assessments to ensure that an economic relationship exists between the hedged item and hedging instrument.

The ineffective portion recognised in the profit or loss that arises from cash flow hedges amounts to a gain of HK\$5.8 million (2017: a gain of HK\$2.0 million).

25 Derivative financial instruments (Continued)

The major terms of the outstanding derivative contracts are as follows:

Notional amount	Maturity	Forward contract rate	Interest rate (per annum)		Exchange frequency	
			Receive	Pay	Receive	Pay
Cross currency swap and interest rate swap contracts – cash flow hedges						
# USD1 billion	2018	USD1 to HKD7.8	6.25%	5.2% – 5.66%	Semi-annually	Quarterly or semi-annually
RMB400 million	2021	HKD1 to RMB0.88	4.45%	1 month HIBOR + 0.58%	Annually	Monthly
USD100 million	2021	USD1 to RMB6.87	3 month LIBOR + 0.53%	4.43%	Quarterly	Quarterly
AUD50 million	2021	AUD1 to HKD7.78	6.43%	3.42%	Semi-annually	Semi-annually
AUD86 million	2022	AUD1 to HKD7.90 – HKD8.21	5.37% – 5.85%	2.75% – 3.42%	Semi-annually or annually	Semi-annually or annually
JPY10 billion	2022	JPY100 to HKD9.705 – HKD9.897	1.19% – 1.36%	3.33% – 3.46%	Semi-annually	Semi-annually
AUD25 million	2025	AUD1 to HKD5.42	3.83%	2.99%	Semi-annually	Semi-annually
JPY2 billion	2027	JPY100 to HKD6.877	0.35%	2.9%	Annually	Quarterly
Foreign currency forward contracts – held-for-trading						
#RMB539.5 million	2018	HKD1 to RMB0.90 – RMB0.91	Nil	Nil	Nil	Nil
#RMB456.1 million	2018	USD1 to RMB7.02	Nil	Nil	Nil	Nil
RMB1,031.7 million	2019	HKD1 to RMB0.92 – RMB0.94	Nil	Nil	Nil	Nil
Cross currency swap contracts – held-for-trading						
RMB1,860.8 million	2019	HKD1 to RMB0.84 – RMB0.89	3 month HIBOR + 0.6% or 3 month HIBOR + 0.7%	4.37% – 4.83%	Quarterly	Quarterly
USD250 million	2019	USD1 to HKD7.785	4.75%	4.18% – 4.23%	Semi-annually	Quarterly or semi-annually
RMB355.1 million	2019	HKD1 to RMB0.88 (Initial exchange) HKD1 to RMB0.94 (Final exchange)	Not applicable	Not applicable	On maturity	On maturity
Interest rate swap contracts – held-for-trading						
HKD270 million	2021	Not applicable	3%	1 month HIBOR + 0.55%	Annually	Monthly

Fully settled in 2018

Gains and losses recognised in the hedging reserve in equity (note 36) on the swaps as of 31st December 2018 will be continuously released to the profit or loss until the repayment of relevant borrowings.

26 Retirement benefit (liabilities)/assets

	2018 HK\$'M	2017 HK\$'M
At 31st December	(23.8)	60.4

The Group operates a defined benefit retirement scheme in Hong Kong, namely the Workmen Retirement Scheme which is a final salary defined benefit scheme.

The amounts recognised in the consolidated statement of financial position are shown as follows:

	2018 HK\$'M	2017 HK\$'M
Fair value of plan assets	546.7	624.9
Present value of funded obligations	(570.5)	(564.5)
Net (liabilities)/assets in the consolidated statement of financial position	(23.8)	60.4

The plan assets did not include any shares of the Company as at 31st December 2018 (2017: nil).

The cost of the defined benefit retirement scheme recognised in the consolidated income statement is as follows:

	2018 HK\$'M	2017 HK\$'M
Current service cost	16.4	17.3
Net interest (income)/cost	(1.3)	0.9
Administrative expenses	0.1	0.1
Total (note 11)	15.2	18.3

The amounts recognised in the other comprehensive income are as follows:

	2018 HK\$'M	2017 HK\$'M
Actuarial loss/(gain) due to liability experience	18.8	(2.9)
Actuarial gain due to financial assumption changes	(6.0)	-
Actuarial gain due to demographic assumption changes	(9.7)	(0.1)
Actuarial losses/(gains)	3.1	(3.0)
Return on plan assets, excluding amounts included in interest income	70.3	(121.1)
Total	73.4	(124.1)

26 Retirement benefit (liabilities)/assets (Continued)

The movements in the defined benefit obligations are as follows:

	2018 HK\$'M	2017 HK\$'M
At 1st January	564.5	574.3
Current service cost	16.4	17.3
Interest cost	11.0	11.1
Benefits paid	(24.5)	(35.2)
Actuarial losses/(gains)	3.1	(3.0)
At 31st December	570.5	564.5

The movements in the fair value of plan assets are as follows:

	2018 HK\$'M	2017 HK\$'M
At 1st January	624.9	524.2
Return on plan assets, excluding amounts included in interest income	(70.3)	121.1
Interest income recognised in consolidated income statement	12.3	10.2
Contribution paid by employer	4.4	4.7
Benefits paid	(24.5)	(35.2)
Administrative expenses	(0.1)	(0.1)
At 31st December	546.7	624.9

The movements in the (liabilities)/assets recognised in the consolidated statement of financial position are as follows:

	2018 HK\$'M	2017 HK\$'M
At 1st January	60.4	(50.1)
Remeasurement effects recognised in other comprehensive income	(73.4)	124.1
Total cost of defined benefit retirement scheme (note 11)	(15.2)	(18.3)
Contribution paid by employer	4.4	4.7
At 31st December	(23.8)	60.4

26 Retirement benefit (liabilities)/assets (Continued)

The major categories of plan assets as a percentage of total plan assets are as follows:

	2018 %	2017 %
Equity securities	75.0	76.0
Debt securities	23.0	20.0
Cash	2.0	4.0

The principal actuarial assumptions used are as follows:

	2018 %	2017 %
Discount rate	2.1	2.0
Expected rate of future salary increases	4.5	4.5

The sensitivity of the defined benefit obligation to changes in the weighted principal assumptions is:

	Impact on defined benefit obligation		
	Change in assumption	Increase in assumption	Decrease in assumption
Discount rate	0.25%	Decrease by 2.6%	Increase by 2.7%
Salary increase rate	0.25%	Increase by 1.5%	Decrease by 2.2%
Maximum salary scale increase rate	0.25%	Increase by 0.4%	Decrease by 1.1%

The above sensitivity analyses are based on a change in an assumption while holding all other assumptions constant. In practice, this is unlikely to occur, and changes in some of the assumptions may be correlated. When calculating the sensitivity of the defined benefit obligation to significant actuarial assumptions the same method (present value of the defined benefit obligation calculated with the projected unit credit method at the end of the reporting period) has been applied as when calculating the pension liability recognised within the statement of financial position.

The methods and types of assumptions used in preparing the sensitivity analysis did not change compared to the previous year.

Expected contributions to the scheme for the year ending 31st December 2019 are HK\$4.3 million.

26 Retirement benefit (liabilities)/assets (Continued)

Through its defined benefit pension plans, the Group is exposed to a number of risks, the most significant of which are detailed below:

Investment risk	Strong investment returns tend to increase the fair value of scheme assets and therefore improve the scheme's financial position as measured by the net defined benefit liability/asset, whilst poor or negative investment returns tend to weaken the position. The scheme assets are invested in a diversified portfolio of equities, bonds and cash, covering major geographical locations around the world. The diversification of asset classes and geographical locations helps to reduce the concentration of risk associated with the scheme investments.
Interest rate risk	The defined benefit obligation (the "DBO") is calculated using a discount rate based on market bond yields. A decrease in the bond yields will increase the DBO.
Salary risk	The DBO is calculated with reference to the future salaries of members because the scheme's benefits are salary-related. Salary increases that are higher than expected will increase the DBO.

The weighted average duration of the benefit obligation is 10.8 years. Expected maturity analysis of benefit undiscounted payments:

	Within 5 years HK\$'M	Beyond 5 years but within 10 years HK\$'M	Beyond 10 years HK\$'M
As 31st December 2018			
Expected benefit payments	127.4	196.0	625.3

27 Other non-current assets

	2018 HK\$'M	2017 HK\$'M
Aviation fuel facility construction receivable (note (a))	2,702.7	2,581.6
Other receivables and prepayments (note(b))	771.3	507.4
	3,474.0	3,089.0

Notes

- (a) Aviation fuel facility construction receivable is denominated in HKD, unsecured and will be recovered by monthly instalments up to 2047.
- (b) Balance mainly represents a prepayment for inventory to a supplier which is denominated in RMB.

28 Inventories

	2018 HK\$'M	2017 HK\$'M
Stores and materials	1,844.7	1,753.6
Work in progress	636.0	824.7
	2,480.7	2,578.3

The Group wrote down the carrying value of inventories by HK\$5.7 million (2017: The Group wrote down the carrying value of inventories by HK\$2.1 million) to its net realisable value during the year.

29 Trade and other receivables

	2018 HK\$'M	2017 HK\$'M
Trade receivables (note (a))	3,563.5	3,734.5
Payments in advance (note (b))	1,581.5	1,659.0
Other receivables	2,470.9	2,118.5
	7,615.9	7,512.0

Trade and other receivables are denominated in the following currencies:

	2018 HK\$'M	2017 HK\$'M
RMB	4,845.4	4,521.3
HKD	2,730.7	2,957.9
USD	33.8	31.5
Others	6.0	1.3
	7,615.9	7,512.0

Notes

- (a) The Group has established credit policies for different types of customers. The credit periods offered for trade receivables, which are subject to periodic review by management, range from 30 to 60 days except for gas receivables of the Company which are due by 8 working days after billing date. As at 31st December 2018, the aging analysis of the trade receivables, net of impairment provision, is as follows:

	2018 HK\$'M	2017 HK\$'M
0 – 30 days	3,106.9	3,293.5
31 – 60 days	107.7	119.0
61 – 90 days	126.4	41.5
Over 90 days	222.5	280.5
	3,563.5	3,734.5

29 Trade and other receivables (Continued)

Notes (Continued)

(a) (Continued)

The Group applies the HKFRS 9 simplified approach to measure expected credit losses which uses a lifetime expected credit loss allowance for trade receivables. This results in an increase of the loss allowance by HK\$13.6 million on 1st January 2018. Note 2(b)(ii)(b) provides for details about the calculation of the allowance.

The loss allowance further increased from HK\$201.4 million to HK\$221.2 million during the year.

Information about the impairment of trade receivables can be found in note 3(b).

- (b) Balance mainly represents prepayment for purchase of materials and services in relation to the Group's gas and New Energy businesses in Hong Kong and mainland China. As at 31st December 2018, the directors of the Company reviewed the composition of the balance and considered the amount is recoverable.

30 Time deposits, cash and bank balances

	2018 HK\$'M	2017 HK\$'M
Time deposits over three months	338.6	2,071.0
Time deposits up to three months	3,643.7	6,208.7
Cash and bank balances	4,857.1	4,549.9
	8,500.8	10,758.6

The effective interest rates on time deposits in Hong Kong and mainland China are 2.70 per cent and 1.82 per cent per annum respectively (2017: 1.96 per cent and 1.73 per cent per annum). These deposits have average maturity dates within 200 days (2017: 163 days).

Time deposits, cash and bank balances are denominated in the following currencies:

	2018 HK\$'M	2017 HK\$'M
USD	1,771.5	4,685.6
RMB	5,366.8	4,732.1
HKD	1,660.0	3,365.8
THB	37.0	41.2
Others	4.1	4.9
	8,839.4	12,829.6

The conversion of Renminbi denominated balances into foreign currencies and the remittance of foreign currencies denominated bank balances and cash out of the PRC are subject to relevant rules and regulations of foreign exchange control promulgated by the PRC government.

31 Trade and other payables and contract liabilities

	2018 HK\$'M	2017 HK\$'M
Trade payables (note (a))	3,078.1	2,977.2
Other payables and accruals (note (b))	4,225.5	4,723.3
Contract liabilities/receipt in advance (note (c))	6,625.8	6,569.3
	13,929.4	14,269.8

Notes

(a) At 31st December 2018, the aging analysis of the trade payables is as follows:

	2018 HK\$'M	2017 HK\$'M
0 – 30 days	1,404.7	1,340.0
31 – 60 days	399.3	488.0
61 – 90 days	300.0	298.0
Over 90 days	974.1	851.2
	3,078.1	2,977.2

(b) The balances mainly represent accrual for services or goods received from suppliers.

(c) The balances mainly represent non-refundable advance received from customers for utility connection services, provision of gas and provision of maintenance service.

The following table shows the amount of the revenue recognised in the current reporting period relates to contract liability balance at the beginning of the year:

	2018 HK\$'M
Revenue recognised that was included in the contract liabilities balance at the beginning of the year	3,378.3

As at 31st December 2018, the amount of unsatisfied performance obligations expected to be recognised within one year and after one year are HK\$3,664.9 million and HK\$4,246.5 million respectively.

As permitted under HKFRS 15, the Group needs not disclose its remaining performance obligations related to provision of gas as the Group recognises such revenue from the satisfaction of the performance obligation in the amount to which the Group has a right to invoice.

(d) Trade and other payables are denominated in the following currencies:

	2018 HK\$'M	2017 HK\$'M
RMB	11,648.3	11,916.5
HKD	2,064.9	2,208.8
USD	199.5	127.0
Others	16.7	17.5
	13,929.4	14,269.8

32 Borrowings

	2018 HK\$'M	2017 HK\$'M
Non-current		
Bank and other loans	14,400.7	8,413.7
Guaranteed notes (note (a))	13,208.6	12,748.1
	27,609.3	21,161.8
Current		
Bank and other loans	7,563.0	8,023.3
Guaranteed notes (note (a))	499.7	7,733.7
Redeemable perpetual securities (note (b))	2,349.6	–
	10,412.3	15,757.0
Total borrowings	38,021.6	36,918.8

Notes

(a) Guaranteed notes comprise:

- (i) The HK\$11,608.0 million, RMB400.0 million, AUD161.0 million and JPY12,000.0 million (2017: HK\$11,038.0 million, AUD161.0 million and JPY12,000.0 million) (which in aggregate is equivalent to HK\$13,809.3 million (2017: HK\$12,852.2 million)) guaranteed notes were issued by HKCG (Finance) Limited, a wholly-owned subsidiary of the Company, between 2nd June 2009 and 26th September 2018. The notes are unsecured and guaranteed by the Company as to repayment, carry fixed coupon rates ranging from 0.35 per cent to 6.43 per cent per annum payable quarterly, half-yearly or annually in arrear and have maturity terms between 3 to 40 years.
- (ii) The US\$1 billion guaranteed notes were issued by HKCG (Finance) Limited, a wholly-owned subsidiary of the Company, on 7th August 2008. The notes were unsecured and guaranteed by the Company as to repayment, carried a fixed coupon rate of 6.25 per cent per annum payable semi-annually in arrear and had a maturity term of 10 years. The notes were listed on The Stock Exchange of Hong Kong Limited. At 31st December 2017, notes with a principal amount of US\$995.0 million, which was equivalent to HK\$7,774.9 million, were outstanding in the market and the market value of the notes was HK\$7,947.9 million. The notes were matured and fully repaid in August 2018.

(b) Redeemable perpetual securities

In January 2014, the Group issued its first perpetual subordinated guaranteed capital securities (the “perpetual capital securities”), amounting to US\$300.0 million through, Towngas (Finance) Limited, a wholly-owned subsidiary of the Company. The perpetual capital securities were guaranteed by the Company, bore distribution at a rate of 4.75 per cent per annum for the first five years and thereafter would have a floating distribution rate. The perpetual capital securities were perpetual and were redeemable, at the option of the Group, in January 2019 or thereafter every six months on the distribution payment date. The distribution payment could be deferred at the discretion of the Group. Therefore, they were classified as equity instruments, and recorded in equity in the consolidated statement of financial position up to 17th December 2018, on which a redemption notice was issued that the issuer would redeem all of the perpetual capital securities on 28th January 2019 (the “First Call Date”) at their principal amount together with any distribution accrued to the First Call Date. In such case, the perpetual capital securities were reclassified to redeemable perpetual securities under current borrowings as at 31st December 2018.

32 Borrowings (Continued)

Notes (Continued)

(b) Redeemable perpetual securities (Continued)

New perpetual capital securities of the same amount, i.e. US\$300.0 million, have been issued subsequently in February 2019 to refinance the redemption and will be treated as equity in the consolidated statement of financial position as at 31st December 2019.

(c) The maturity of borrowings is as follows:

	Bank and other loans		Guaranteed notes and redeemable perpetual securities	
	2018 HK\$'M	2017 HK\$'M	2018 HK\$'M	2017 HK\$'M
Within 1 year	7,563.0	8,023.3	2,849.3	7,733.7
Between 1 and 2 years	1,841.3	3,501.1	–	495.2
Between 2 and 5 years	12,541.0	4,891.7	4,039.3	2,977.4
Wholly repayable within 5 years	21,945.3	16,416.1	6,888.6	11,206.3
Wholly repayable over 5 years	18.4	20.9	9,169.3	9,275.5

(d) The exposure of the Group's borrowings to interest rate changes and the contractual repricing dates are all within 6 months from the date of statement of financial position, except for guaranteed notes and some bank loans as they are subjected to fixed interest rate and with maturity term ranged from 1 to 40 years. The effective interest rates of the Group's borrowings at the date of statement of financial position are as follows:

	2018					2017				
	HKD	USD	RMB	AUD	JPY	HKD	USD	RMB	AUD	JPY
Bank and other loans	2.9%	4.4%	4.6%	N/A	1.2%	2.0%	2.3%	4.4%	N/A	1.2%
Guaranteed notes and redeemable perpetual securities	3.5%	4.8%	2.9%	3.1%	3.3%	3.5%	5.4%	N/A	3.1%	3.3%

(e) Saved as disclosed above, carrying value of borrowings and guaranteed notes approximate their fair value as the balances either at variable rates or the impact of discounting is not significant.

(f) The carrying amounts of the borrowings are denominated in the following currencies:

	2018 HK\$'M	2017 HK\$'M
HKD	21,994.9	15,704.7
RMB	11,118.7	11,127.0
USD	3,146.6	8,256.1
AUD	888.6	982.0
JPY	872.8	849.0
	38,021.6	36,918.8

33 Deferred taxation

The movements in the deferred taxation are as follows:

	2018 HK\$'M	2017 HK\$'M
At 1st January	5,723.1	5,067.3
Changes in accounting policy	92.0	–
At 1st January (restated)	5,815.1	5,067.3
Charged to the profit or loss	376.5	409.6
Charged to other comprehensive income	19.6	–
Withholding tax	(33.1)	(53.4)
Exchange differences	(79.0)	299.6
At 31st December	6,099.1	5,723.1

Prior to offsetting of balances within the same taxation jurisdiction, the movements in deferred tax liabilities and assets during the year are as follows:

	Accelerated tax depreciation		Mining and oil properties		Others		Total	
	2018 HK\$'M	2017 HK\$'M	2018 HK\$'M	2017 HK\$'M	2018 HK\$'M	2017 HK\$'M	2018 HK\$'M	2017 HK\$'M
Deferred tax liabilities								
At 1st January	3,257.3	2,852.7	1,679.0	1,536.9	805.9	696.8	5,742.2	5,086.4
Changes in accounting policy	–	–	–	–	92.0	–	92.0	–
At 1st January (restated)	3,257.3	2,852.7	1,679.0	1,536.9	897.9	696.8	5,834.2	5,086.4
Charged/(credited) to profit or loss	307.3	314.4	(10.6)	(20.8)	79.8	116.0	376.5	409.6
Charged to other comprehensive income	–	–	–	–	19.6	–	19.6	–
Withholding tax	–	–	–	–	(33.1)	(53.4)	(33.1)	(53.4)
Exchange differences	(65.6)	90.2	10.7	162.9	(24.1)	46.5	(79.0)	299.6
At 31st December	3,499.0	3,257.3	1,679.1	1,679.0	940.1	805.9	6,118.2	5,742.2

	Provisions		Tax losses		Total	
	2018 HK\$'M	2017 HK\$'M	2018 HK\$'M	2017 HK\$'M	2018 HK\$'M	2017 HK\$'M
Deferred tax assets						
At 1st January and 31st December	(8.3)	(8.3)	(10.8)	(10.8)	(19.1)	(19.1)
Net deferred tax liabilities at 31st December					6,099.1	5,723.1

Deferred tax assets are recognised for tax loss carry-forwards to the extent that the realisation of the related tax benefit through future taxable profits is probable. The Group did not recognise deferred tax assets of HK\$705.4 million (2017: HK\$600.6 million) in respect of losses amounting to HK\$3,025.1 million (2017: HK\$2,561.5 million) that can be carried forward and set off against future taxable income. These tax losses have no expiry dates except for the tax losses of HK\$2,425.9 million (2017: HK\$2,094.1 million) which will expire at various dates up to and including 2023 (2017: 2022).

34 Other non-current liabilities

	2018 HK\$'M	2017 HK\$'M
Customers' deposits (note (a))	1,371.5	1,331.6
Contract liabilities (note (b))	637.7	–
	2,009.2	1,331.6

Notes

- (a) Customers' deposits mainly represent deposits received from customers pursuant to gas supply contracts agreed with customers and are repayable upon termination of gas supply contracts. The carrying values of the deposits approximate the fair value as the impact of discount is not significant. The balances are denominated in HKD and bear interest at bank savings rate.
- (b) The balance includes only the non-current portion of contract liabilities.

35 Share capital

	Number of shares		Share capital	
	2018	2017	2018 HK\$'M	2017 HK\$'M
Issued and fully paid:				
At beginning of year	13,987,646,483	12,717,042,258	5,474.7	5,474.7
Bonus shares	1,398,764,648	1,271,604,225	–	–
Shares bought back	–	(1,000,000)	–	–
At end of year	15,386,411,131	13,987,646,483	5,474.7	5,474.7

36 Reserves

	Investment revaluation reserve HK\$'M	Hedging reserve HK\$'M	Exchange reserve HK\$'M	Retained profits HK\$'M	Total HK\$'M
At 1st January 2018	7.0	138.8	1,651.4	53,166.9	54,964.1
Changes in accounting policy	119.6	-	-	134.9	254.5
As at 1st January 2018 (restated)	126.6	138.8	1,651.4	53,301.8	55,218.6
Profit attributable to shareholders	-	-	-	9,312.8	9,312.8
Other comprehensive income:					
Remeasurements of retirement benefit	-	-	-	(73.4)	(73.4)
Change in value of financial assets at FVOCI	(33.3)	-	-	-	(33.3)
Change in fair value of cash flow hedges	-	(88.7)	-	-	(88.7)
Share of other comprehensive income of an associate	-	3.6	-	-	3.6
Exchange differences	-	-	(2,302.7)	-	(2,302.7)
Total comprehensive income for the year	(33.3)	(85.1)	(2,302.7)	9,239.4	6,818.3
Partial disposal of a subsidiary	-	-	-	12.0	12.0
Further acquisition of subsidiaries	-	-	-	(22.2)	(22.2)
Redemption of perpetual capital securities	-	-	-	(37.1)	(37.1)
2017 final dividend paid	-	-	-	(3,217.2)	(3,217.2)
2018 interim dividend paid	-	-	-	(1,846.4)	(1,846.4)
At 31st December 2018	93.3	53.7	(651.3)	57,430.3	56,926.0
Balance after 2018 final dividend proposed	93.3	53.7	(651.3)	53,891.4	53,387.1
2018 final dividend proposed	-	-	-	3,538.9	3,538.9
	93.3	53.7	(651.3)	57,430.3	56,926.0

36 Reserves (Continued)

	Investment revaluation reserve HK\$'M	Hedging reserve HK\$'M	Exchange reserve HK\$'M	Retained profits HK\$'M	Total HK\$'M
At 1st January 2017	119.6	259.2	(1,369.2)	49,447.9	48,457.5
Profit attributable to shareholders	–	–	–	8,225.3	8,225.3
Other comprehensive income:					
Remeasurements of retirement benefit	–	–	–	124.1	124.1
Change in value of available-for-sale financial assets	165.0	–	–	–	165.0
Release of reserve of available-for-sale financial assets upon disposal	(413.4)	–	–	–	(413.4)
Impairment loss on available-for-sale financial assets transferred to the profit or loss	135.8	–	–	–	135.8
Change in fair value of cash flow hedges	–	(117.5)	–	–	(117.5)
Share of other comprehensive loss of an associate	–	(2.9)	–	–	(2.9)
Exchange differences	–	–	3,020.6	–	3,020.6
Total comprehensive income for the year	(112.6)	(120.4)	3,020.6	8,349.4	11,137.0
Shares bought back	–	–	–	(15.4)	(15.4)
Further acquisition of subsidiaries	–	–	–	(11.8)	(11.8)
2016 final dividend paid	–	–	–	(2,924.7)	(2,924.7)
2017 interim dividend paid	–	–	–	(1,678.5)	(1,678.5)
At 31st December 2017	7.0	138.8	1,651.4	53,166.9	54,964.1
Balance after 2017 final dividend proposed	7.0	138.8	1,651.4	49,949.7	51,746.9
2017 final dividend proposed	–	–	–	3,217.2	3,217.2
	7.0	138.8	1,651.4	53,166.9	54,964.1

37 Perpetual capital securities

In December 2018, a redemption notice was issued that the issuer will redeem all of the perpetual capital securities on 28th January 2019 (the “First Call Date”) at their principal amount together with any distribution accrued to the First Call Date. In such case, the perpetual capital securities are reclassified to current borrowings as at 31st December 2018. Details of the reclassification are disclosed in note 32 in the report.

38 Contingent liabilities

The Company and the Group did not have any material contingent liabilities as at 31st December 2018 and 2017.

39 Commitments

- (a) Capital expenditures for property, plant and equipment

	2018 HK\$'M	2017 HK\$'M
Contracts had been entered into but not brought into the consolidated financial statements at 31st December	3,496.0	4,164.1

- (b) Share of capital expenditures for property, plant and equipment of joint ventures

	2018 HK\$'M	2017 HK\$'M
Contracts had been entered into but not brought into the consolidated financial statements at 31st December	2,912.1	2,809.0

- (c) The Group has committed to provide sufficient funds in the forms of capital and loan contributions to finance certain gas and New Energy projects under various contracts in mainland China. The directors of the Company estimate that as at 31st December 2018, the Group's commitments to these projects were approximately HK\$1,848.6 million (2017: HK\$2,571.5 million).

- (d) Lease commitments

Lessee

At 31st December 2018, future aggregate minimum lease payments of land, buildings, plant and equipment under non-cancellable operating leases are as follows:

	2018 HK\$'M	2017 HK\$'M
Not later than 1 year	135.9	133.7
Later than 1 year and not later than 5 years	277.5	265.9
Later than 5 years	165.8	221.7
	579.2	621.3

39 Commitments (Continued)

(d) Lease commitments (Continued)

Lessor

The Group leases out the building facilities of the commercial complex and car parks of Grand Waterfront (further details of the carrying value of the property are contained in note 17). Except for certain car parks rented out on an hourly or a monthly basis, these leases typically run for a period of 2 to 5 years. At 31st December 2018, future aggregate minimum lease payments receivable under non-cancellable operating leases are as follows:

	2018 HK\$'M	2017 HK\$'M
Not later than 1 year	23.7	28.8
Later than 1 year and not later than 5 years	14.5	16.1
	38.2	44.9

40 Related party transactions

Henderson Land Development Company Limited ("Henderson") is a related party of the Group by virtue of its significant interest in and influence over the Group. Other related parties include subsidiaries of Henderson and one bank with a common director with the Company during the year. During the year, the transactions carried out and year end balances with the associates, joint ventures and other related parties are shown as follows:

(a) Interest income and sales of goods and services

	2018 HK\$'M	2017 HK\$'M
Associates		
Sale of goods and services (note (i))	20.2	30.4
Loan interest income (note (ii))	79.8	36.7
Joint ventures		
Sale of goods and services (note (i))	69.6	64.0
Loan interest income (note (ii))	12.8	7.3
Other related parties		
Sale of goods and services (note (i))	65.7	46.0
Interest income from bank deposits (note (i))	3.3	1.3

40 Related party transactions (Continued)

(b) Interest expense and purchase of goods and services

	2018 HK\$'M	2017 HK\$'M
Associates		
Purchase of goods and services (note (i))	468.2	320.2
Joint ventures		
Purchase of goods and services (note (i))	75.7	42.8
Loan interest expenses (note (ii))	27.6	26.9
Other related parties		
Purchase of goods and services (note (i))	21.9	22.2
Interest expense on bank loans (note (i))	25.0	26.6

Notes

(i) These related party transactions were conducted at prices and terms as agreed by parties involved.

(ii) For the terms and year end balances of loans, please refer to notes 21 and 22.

(c) Year end balances arising from interest income, interest expense and sale or purchase of goods and services from other related parties

	2018 HK\$'M	2017 HK\$'M
Time deposits and interest receivables	–	420.4
Bank loans and interest payables	443.1	805.0
Trade receivables	4.5	4.7
Trade payables	–	0.6

(d) Other related party transactions are also disclosed in notes 12, 21, 22, 29 and 31.

41 Notes to consolidated cash flow statement

(a) Reconciliation of profit before taxation to net cash from operating activities

	2018 HK\$'M	2017 HK\$'M
Profit before taxation	12,339.5	11,096.7
Share of results of associates	(3,589.5)	(2,604.3)
Share of results of joint ventures	(1,523.4)	(1,487.9)
Gain on disposal of associates	–	(23.8)
Fair value gain on investment property	(12.5)	(33.6)
Gain on deemed disposal of partial interest in associates	–	(253.4)
Impairment of trade receivables	37.5	30.9
Provision for assets	200.0	365.1
Ineffective portion on cash flow hedges	(5.8)	(2.0)
Unhedged portion on cash flow hedges	–	0.4
Interest income	(299.3)	(256.1)
Interest expense	1,176.6	1,256.9
Dividend income from investments in securities	(125.8)	(187.5)
Depreciation and amortisation	2,537.2	2,374.8
(Gain)/loss on disposal/write off of property, plant and equipment	(1.2)	4.2
(Gain)/loss on disposal of leasehold land	(40.3)	0.3
Net gain on FVOCI/available-for-sale financial assets	(2.8)	(243.7)
Net realised and unrealised (gain)/loss on investments in financial assets at FVPL and derivative financial instruments	(83.0)	312.3
Tax paid	(1,542.7)	(1,473.8)
Exchange differences	280.9	(354.7)
Changes in working capital		
Increase in customers' deposits	39.9	28.8
Decrease/(increase) in inventories	44.8	(422.9)
Increase in trade and other receivables	(621.9)	(1,297.1)
Increase in trade and other payables and contract liabilities	618.2	1,673.7
Increase in asset retirement obligations	1.7	7.5
Changes in retirement benefit assets	10.8	13.6
Net cash from operating activities	9,438.9	8,524.4

41 Notes to consolidated cash flow statement (Continued)

(b) Reconciliation of liabilities arising from financing activities

	Borrowings HK\$'M
At 1st January 2018	36,918.8
Cash flows	(669.4)
Exchange differences	(572.9)
Reclassified from perpetual capital securities	2,343.9
Others	1.2
At 31st December 2018	38,021.6

42 Business combinations

(a) Business combination under the Group's new energy business

For the year ended 31st December 2018, the following businesses are acquired:

	Percentage of registered capital acquired	Purchase consideration HK\$'M
邢台市易高興化清潔能源有限公司	80	26.4

The inclusion of the acquired businesses does not have a significant impact of the Group's turnover and profit for the year.

The details of fair value of net identifiable assets and goodwill are as follows:

	Acquirees' fair value at acquisition date HK\$'M
Property, plant and equipment (note 16)	27.0
Trade and other receivables	1.3
Trade and other payables	(1.0)
Net assets	27.3
Non-controlling interests	(5.5)
Net identifiable assets acquired	21.8
Goodwill (note 19 (a))	4.6
Purchase consideration	26.4

42 Business combinations (Continued)

(a) Business combination under the Group's new energy business (Continued)

The goodwill is attributable to the future profitability of the acquired businesses and the synergies expected to arise after the Group's acquisitions.

Net cash flow arising on acquisition:

	HK\$'M
Purchase consideration for acquisition of businesses, settled in cash	14.0
Cash and cash equivalents in business acquired	–
Cash outflow on acquisition of businesses	14.0

As at 31st December 2018, purchase consideration of HK\$12.4 million remained unpaid and included in trade and other payables.

(b) Business combination under Towngas China

For the year ended 31st December 2018, Towngas China acquired the following businesses:

	Percentage of registered capital acquired	Purchase consideration HK\$'M
徐州工業園區中港熱力有限公司	51	49.7

The inclusion of the acquired businesses does not have a significant impact of the Group's turnover and profit for the year.

The details of fair value of net identifiable assets acquired and goodwill are as follows:

	Acquirees' fair value at acquisition date HK\$'M
Property, plant and equipment (note 16)	13.5
Trade and other receivables	86.9
Cash and bank balances	2.1
Trade and other payables	(7.5)
Net assets	95.0
Non-controlling interests	(46.6)
Net identifiable assets acquired	48.4
Goodwill (note 19 (a))	1.3
Purchase consideration	49.7

The goodwill is attributable to the future profitability of the acquired businesses and the synergies expected to arise after the Group's acquisition.

42 Business combinations (Continued)

(b) Business combination under Towngas China (Continued)

Net cash flow arising on acquisition:

	HK\$'M
Purchase consideration for acquisition of business, settled in cash	49.7
Cash and cash equivalents in business acquired	(2.1)
Cash outflow on acquisition of business	47.6

(c) Further acquisition of subsidiaries

During the year, the Group has further acquired the interest in several subsidiaries. The total consideration for all further acquisitions is approximately HK\$70.6 million. The difference between the share of net assets value acquired and total consideration of HK\$22.2 million was recognised directly in equity for these transactions with non-controlling interests.

(d) Apart from the above, there were no other material acquisitions during the year ended 31st December 2018.

43 Statement of financial position of the Company

	2018 HK\$'M	2017 HK\$'M
Assets		
Non-current assets		
Property, plant and equipment	12,111.1	11,613.3
Leasehold land	211.0	218.0
Subsidiaries	19,508.2	18,148.3
Associate	631.0	–
Joint ventures	831.7	831.7
Retirement benefit assets	–	60.4
	33,293.0	30,871.7
Current assets		
Inventories	1,125.2	1,198.4
Trade and other receivables	2,114.5	2,091.5
Loan and other receivables from associates	21.6	21.5
Other receivables from joint ventures	24.3	16.9
Derivative financial instruments	–	0.4
Time deposits over three months	–	980.1
Time deposits up to three months, cash and bank balances	1,587.2	1,487.5
	4,872.8	5,796.3
Current liabilities		
Trade and other payables and contract liabilities	(1,537.9)	(1,606.3)
Provision for taxation	(187.4)	(169.5)
	(1,725.3)	(1,775.8)
Total assets less current liabilities	36,440.5	34,892.2
Non-current liabilities		
Loan and other payables to subsidiaries	(12,333.4)	(11,790.0)
Customers' deposits	(1,355.4)	(1,316.5)
Deferred taxation	(1,393.5)	(1,333.2)
Retirement benefit liabilities	(23.8)	–
Borrowings	(1,040.8)	(247.8)
	(16,146.9)	(14,687.5)
Net assets	20,293.6	20,204.7

43 Statement of financial position of the Company (Continued)

	2018 HK\$'M	2017 HK\$'M
Capital and reserves		
Share capital	5,474.7	5,474.7
Reserves (note (a))	14,818.9	14,730.0
	20,293.6	20,204.7

Approved by the Board of Directors on 20th March 2019

Lee Shau-kee
Director

David Li Kwok-po
Director

43 Statement of financial position of the Company (Continued)

Note

(a) Reserves of the Company

	Investment revaluation reserve HK\$'M	Retained profits HK\$'M	Total HK\$'M
At 1st January 2018	–	14,730.0	14,730.0
Profit attributable to shareholders	–	5,225.9	5,225.9
Other comprehensive income:			
Remeasurements of retirement benefit	–	(73.4)	(73.4)
Total comprehensive income for the year	–	5,152.5	5,152.5
2017 final dividend paid	–	(3,217.2)	(3,217.2)
2018 interim dividend paid	–	(1,846.4)	(1,846.4)
At 31st December 2018	–	14,818.9	14,818.9
Balance after 2018 final dividend proposed	–	11,280.0	11,280.0
2018 final dividend proposed	–	3,538.9	3,538.9
	–	14,818.9	14,818.9
At 1st January 2017	7.8	14,101.7	14,109.5
Profit attributable to shareholders	–	5,122.8	5,122.8
Other comprehensive income:			
Remeasurements of retirement benefit	–	124.1	124.1
Change in value of available-for-sale financial assets	(7.8)	–	(7.8)
Total comprehensive income for the year	(7.8)	5,246.9	5,239.1
Shares bought back	–	(15.4)	(15.4)
2016 final dividend paid	–	(2,924.7)	(2,924.7)
2017 interim dividend paid	–	(1,678.5)	(1,678.5)
At 31st December 2017	–	14,730.0	14,730.0
Balance after 2017 final dividend proposed	–	11,512.8	11,512.8
2017 final dividend proposed	–	3,217.2	3,217.2
	–	14,730.0	14,730.0

Subsidiaries

The following is a list of the principal subsidiaries as at 31st December 2018:

Name	Issued share capital/ registered capital	Percentage of issued/ registered capital held	Place of incorporation/ operation	Principal activity
Gas and related businesses in Hong Kong				
Summit Result Developments Limited	HK\$100	100	Hong Kong	Customers Centre
Towngas Enterprise Limited	HK\$2	100	Hong Kong	Café, restaurant and retail sales
Uticom Limited	HK\$100	100	Hong Kong	Development of automatic meter reading system
# Quality Testing Services Limited	HK\$10,000	100	Hong Kong	Laboratory testing
Gas, water and related businesses in Mainland China				
Chaozhou Hong Kong and China Gas Company Limited	HK\$100.0 million	60	PRC	Gas sales and related businesses
Danyang Hong Kong and China Gas Company Limited	RMB60.0 million	80	PRC	Gas sales and related businesses
Fengcheng Hong Kong and China Gas Company Limited	RMB88.0 million	55	PRC	Gas sales and related businesses
Guangzhou Dongyong Hong Kong & China Gas Company Limited	HK\$71.3 million	82.6	PRC	Gas sales and related businesses
Guangzhou Hong Kong and China Gas Company Limited	RMB105.0 million	80	PRC	Gas sales and related businesses
Jiangxi Hong Kong and China Gas Company Limited	RMB25.9 million	56	PRC	Gas sales and related businesses
Jilin Hong Kong and China Gas Company Limited	RMB100.0 million	63	PRC	Gas sales and related businesses
常州金壇港華燃氣有限公司	RMB60.0 million	60	PRC	Gas sales and related businesses
† Peixian Hong Kong and China Gas Company Limited	RMB100.0 million	100	PRC	Gas sales and related businesses
† Pingxiang Hong Kong & China Gas Company Limited	RMB104.8 million	100	PRC	Gas sales and related businesses
† Suining Hong Kong and China Gas Company Limited	RMB66.5 million	100	PRC	Gas sales and related businesses
Taizhou Hong Kong and China Gas Company Limited	RMB83.0 million	65	PRC	Gas sales and related businesses
Taizhou Yongan Hong Kong and China Gas Company Limited	US\$10.0 million	93.9	PRC	Gas sales and related businesses
Wujiang Hong Kong and China Gas Company Limited	RMB60.0 million	80	PRC	Gas sales and related businesses
Xuzhou Hong Kong and China Gas Company Limited	RMB125.0 million	80	PRC	Gas sales and related businesses
Yixing Hong Kong and China Gas Company Limited	RMB124.0 million	80	PRC	Gas sales and related businesses
† Zhang Shu Hong Kong & China Gas Company Limited	US\$5.0 million	100	PRC	Gas sales and related businesses
Zhongshan Hong Kong and China Gas Limited	RMB96.0 million	70	PRC	Gas sales and related businesses
景縣港華燃氣有限公司	RMB79.0 million	81	PRC	Gas sales and related businesses
† 豐縣港華燃氣有限公司	US\$4.5 million	100	PRC	Gas sales and related businesses
饒平港華燃氣有限公司	HK\$126.0 million	60	PRC	Gas sales and related businesses

Direct subsidiaries of the Company

† Wholly foreign-owned enterprises

Subsidiaries (Continued)

The following is a list of the principal subsidiaries as at 31st December 2018: (Continued)

Name	Issued share capital/ registered capital	Percentage of issued/ registered capital held	Place of incorporation/ operation	Principal activity
Gas, water and related businesses in Mainland China (Continued)				
† 新密港華燃氣有限公司	US\$12.5 million	100	PRC	Gas sales and related businesses
† 港華支付科技(深圳)有限公司	RMB28.0 million	100	PRC	Payment gateway and related businesses
瀋陽三全工程監理諮詢有限公司	RMB3.0 million	60	PRC	Project management
† Maanshan Hong Kong and China Water Company Limited	RMB212.6 million	100	PRC	Water supply and related businesses
# Wuhu Hong Kong and China Water Company Limited	RMB400.0 million	75	PRC	Water supply and related businesses
Wujiang Hong Kong and China Water Company Limited	RMB860.0 million	80	PRC	Water supply and related businesses
† 安徽省江北華衍水務有限公司	RMB374.4 million	100	PRC	Water supply and related businesses
† Hong Kong & China Gas Investment Limited	US\$75.0 million	100	PRC	Investment holding
* Towngas China Company Limited	2,810,027,892 shares of HK\$0.1 each	67.5	Cayman Islands/ Hong Kong	Investment holding
The following subsidiaries engaged in gas businesses are held by Towngas China Company Limited (TCCL) and the respective equity interest held by TCCL is shown accordingly.				
† An Shan Hong Kong and China Gas Company Limited	US\$15.0 million	100	PRC	Gas sales and related businesses
Baotou Hong Kong & China Gas Company Limited	RMB20.0 million	85	PRC	Gas sales and related businesses
Beipiao Hong Kong and China Gas Company Limited	RMB56.0 million	80	PRC	Gas sales and related businesses
Ben Xi Hongkong and China Gas Company Limited	RMB335.0 million	80	PRC	Gas sales and related businesses
Boxing Hong Kong & China Gas Co., Ltd.	RMB40.0 million	65	PRC	Gas sales and related businesses
† Cang Xi Hong Kong and China Gas Company Limited	RMB20.0 million	100	PRC	Gas sales and related businesses
Cangxian Hong Kong & China Gas Co., Ltd.	RMB10.0 million	90	PRC	Gas sales and related businesses
Changting Hong Kong and China Gas Company Limited	RMB22.0 million	90	PRC	Gas sales and related businesses
Chaoyang Hongkong and China Gas Company Limited	US\$10.8 million	90	PRC	Gas sales and related businesses
潮州楓溪港華燃氣有限公司	RMB60.0 million	60	PRC	Gas sales and related businesses
Chi Ping Hong Kong and China Gas Co. Ltd.	RMB40.0 million	85	PRC	Gas sales and related businesses
† Chizhou Hong Kong and China Gas Company Ltd	RMB20.0 million	100	PRC	Gas sales and related businesses

Direct subsidiaries of the Company

† Wholly foreign-owned enterprises

* A listed company in The Stock Exchange of Hong Kong Limited

Subsidiaries (Continued)

The following is a list of the principal subsidiaries as at 31st December 2018: (Continued)

Name	Issued share capital/ registered capital	Percentage of issued/ registered capital held	Place of incorporation/ operation	Principal activity
Gas, water and related businesses in Mainland China (Continued)				
<i>Dafeng Hong Kong and China Gas Company Limited</i>	<i>RMB80.0 million</i>	<i>51</i>	<i>PRC</i>	<i>Gas sales and related businesses</i>
† <i>Dalian Changxing Hong Kong and China Gas Co. Ltd.</i>	<i>US\$14.0 million</i>	<i>100</i>	<i>PRC</i>	<i>Gas sales and related businesses</i>
† <i>Dalian Lvshun Hong Kong and China Gas Co. Ltd.</i>	<i>US\$15.0 million</i>	<i>100</i>	<i>PRC</i>	<i>Gas sales and related businesses</i>
<i>Da Yi Hong Kong and China Gas Company Limited</i>	<i>RMB20.0 million</i>	<i>100</i>	<i>PRC</i>	<i>Gas sales and related businesses</i>
† <i>Feicheng Hong Kong and China Gas Company Limited</i>	<i>RMB32.0 million</i>	<i>100</i>	<i>PRC</i>	<i>Gas sales and related businesses</i>
† <i>阜新大力燃氣有限責任公司 Fuxin Hongkong and China Gas Company Limited</i>	<i>RMB13.9 million</i> <i>RMB77.2 million</i>	<i>100</i> <i>90</i>	<i>PRC</i> <i>PRC</i>	<i>Gas sales and related businesses</i> <i>Gas sales and related businesses</i>
† <i>阜新新邱港華燃氣有限公司</i>	<i>RMB34.0 million</i>	<i>100</i>	<i>PRC</i>	<i>Gas sales and related businesses</i>
† <i>Gao Chun Hong Kong and China Gas Co., Ltd.</i>	<i>US\$7.5 million</i>	<i>100</i>	<i>PRC</i>	<i>Gas sales and related businesses</i>
† <i>Gongzhuling Hong Kong and China Gas Company Limited</i>	<i>RMB88.0 million</i>	<i>100</i>	<i>PRC</i>	<i>Gas sales and related businesses</i>
† <i>廣西中威管道燃氣發展集團有限責任公司</i>	<i>RMB30.0 million</i>	<i>100</i>	<i>PRC</i>	<i>Gas sales and related businesses</i>
† <i>Guilin Hong Kong & China Gas Co., Ltd.</i>	<i>RMB30.0 million</i>	<i>100</i>	<i>PRC</i>	<i>Gas sales and related businesses</i>
† <i>Huang Shan Hong Kong & China Gas Co., Ltd.</i>	<i>RMB40.0 million</i>	<i>100</i>	<i>PRC</i>	<i>Gas sales and related businesses</i>
† <i>Huangshan Huizhou Hong Kong & China Gas Co., Ltd.</i>	<i>US\$2.1 million</i>	<i>100</i>	<i>PRC</i>	<i>Gas sales and related businesses</i>
† <i>Huang Shan Taiping Hong Kong & China Gas Co., Ltd.</i>	<i>US\$3.5 million</i>	<i>100</i>	<i>PRC</i>	<i>Gas sales and related businesses</i>
<i>Huzhou Hong Kong and China Gas Company Limited</i>	<i>US\$10.5 million</i>	<i>98.9</i>	<i>PRC</i>	<i>Gas sales and related businesses</i>
<i>Jiajiang Hong Kong & China Gas Company Limited</i>	<i>RMB20.0 million</i>	<i>70</i>	<i>PRC</i>	<i>Gas sales and related businesses</i>
<i>Jianping Hong Kong and China Gas Company Limited</i>	<i>RMB58.0 million</i>	<i>80</i>	<i>PRC</i>	<i>Gas sales and related businesses</i>
<i>簡陽港華燃氣有限公司</i>	<i>RMB150.0 million</i>	<i>100</i>	<i>PRC</i>	<i>Gas sales and related businesses</i>
<i>Ji Nan Ping Yin Hong Kong & China Gas Co., Ltd.</i>	<i>RMB200.0 million</i>	<i>82.2</i>	<i>PRC</i>	<i>Gas sales and related businesses</i>
<i>九江港華燃氣有限公司</i>	<i>RMB10.0 million</i>	<i>60</i>	<i>PRC</i>	<i>Gas sales and related businesses</i>
† <i>Kazuo Hong Kong & China Gas Co., Ltd.</i>	<i>US\$6.4 million</i>	<i>100</i>	<i>PRC</i>	<i>Gas sales and related businesses</i>
† <i>Laiyang Hong Kong and China Gas Co., Ltd</i>	<i>US\$11.5 million</i>	<i>100</i>	<i>PRC</i>	<i>Gas sales and related businesses</i>
† <i>Lezhi Hong Kong and China Gas Company Limited</i>	<i>RMB30.0 million</i>	<i>100</i>	<i>PRC</i>	<i>Gas sales and related businesses</i>

† *Wholly foreign-owned enterprises*

Subsidiaries (Continued)

The following is a list of the principal subsidiaries as at 31st December 2018: (Continued)

Name	Issued share capital/ registered capital	Percentage of issued/ registered capital held	Place of incorporation/ operation	Principal activity
Gas, water and related businesses in Mainland China (Continued)				
† Longkou Hongkong and China Gas Company Limited	US\$7.1 million	100	PRC	Gas sales and related businesses
† Luliang Hong Kong & China Gas Company Limited	RMB52.0 million	100	PRC	Gas sales and related businesses
Maanshan Bowang Hong Kong & China Gas Co., Ltd.	US\$10.0 million	75.1	PRC	Gas sales and related businesses
† Maanshan Jiangbei Hong Kong and China Towngas Company Limited	US\$10.0 million	100	PRC	Gas sales and related businesses
Mengcun Hong Kong & China Gas Co., Ltd.	RMB10.0 million	90	PRC	Gas sales and related businesses
Mianzhu Hong Kong and China Gas Co., Ltd.	RMB30.0 million	80	PRC	Gas sales and related businesses
† Mianyang Hong Kong & China Gas Co., Ltd.	RMB90.0 million	100	PRC	Gas sales and related businesses
Mianyang Heqing Towngas Co., Ltd.	RMB10.0 million	80	PRC	Gas sales and related businesses
Mianzhu Yuquan Hong Kong and China Gas Co., Ltd.	RMB5.0 million	80	PRC	Gas sales and related businesses
Miluo Hong Kong and China Gas Co. Ltd.	RMB50.0 million	70	PRC	Gas sales and related businesses
Mei Shan Peng Shan Hong Kong and China Gas Company Limited (Formerly named as Peng Shan Hong Kong and China Gas Company Limited)	RMB20.0 million	70	PRC	Gas sales and related businesses
Peng Xi Hong Kong and China Gas Company Limited	RMB20.0 million	100	PRC	Gas sales and related businesses
平昌港華燃氣有限公司	RMB20.0 million	90	PRC	Gas sales and related businesses
Qingdao Dong Yi Hong Kong and China Gas Company Limited	RMB30.0 million	60	PRC	Gas sales and related businesses
Qingdao Zhongji Hong Kong and China Gas Company Limited	RMB73.5 million	90	PRC	Gas sales and related businesses
清遠港華燃氣有限公司	RMB50.0 million	80	PRC	Gas sales and related businesses
Qinhuangdao Hong Kong & China Gas Co., Ltd.	RMB15.0 million	51	PRC	Gas sales and related businesses
齊齊哈爾港華燃氣有限公司	RMB128.6 million	61.7	PRC	Gas sales and related businesses
韶關港華燃氣有限公司	RMB20.0 million	100	PRC	Gas sales and related businesses
† Shenyang Hong Kong & China Gas Company Limited	US\$24.5 million	100	PRC	Gas sales and related businesses
Siping Hong Kong & China Gas Company Limited	RMB45.0 million	80	PRC	Gas sales and related businesses
松陽港華燃氣有限公司	RMB80.0 million	51.4	PRC	Gas sales and related businesses
Tie Ling Hong Kong and China Gas Company Limited	RMB233.0 million	80	PRC	Gas sales and related businesses

† Wholly foreign-owned enterprises

Subsidiaries (Continued)

The following is a list of the principal subsidiaries as at 31st December 2018: (Continued)

Name	Issued share capital/ registered capital	Percentage of issued/ registered capital held	Place of incorporation/ operation	Principal activity
Gas, water and related businesses in Mainland China (Continued)				
† Tongshan Hong Kong and China Gas Co. Ltd	RMB124.0 million	100	PRC	Gas sales and related businesses
Tongxiang Hong Kong and China Gas Company Limited	US\$7.0 million	76	PRC	Gas sales and related businesses
† Towngas Natural Gas Sales Co., Ltd.	RMB50.0 million	100	PRC	Procurement of natural gas sources
威遠港華燃氣有限公司	RMB30.0 million	100	PRC	Gas sales and related businesses
† Wuhu Jiangbei Hong Kong & China Gas Company Limited	RMB200.0 million	100	PRC	Gas sales and related businesses
Wulian Hong Kong & China Gas Company Limited	RMB20.0 million	70	PRC	Gas sales and related businesses
† Wuning Hong Kong & China Gas Co., Ltd.	RMB40.0 million	100	PRC	Gas sales and related businesses
成都新都港華燃氣有限公司	RMB30.0 million	100	PRC	Gas sales and related businesses
Xin Jin Hong Kong and China Gas Company Limited	RMB40.0 million	60	PRC	Gas sales and related businesses
Xingyi Hong Kong & China Gas Company Limited	RMB50.0 million	70	PRC	Gas sales and related businesses
修水港華燃氣有限公司	RMB30.0 million	80	PRC	Gas sales and related businesses
† Yang Jiang Hong Kong and China Gas Company Limited	RMB50.0 million	100	PRC	Gas sales and related businesses
Yan Shan Hong Kong & China Gas Co., Ltd.	RMB10.0 million	90	PRC	Gas sales and related businesses
Yangxin Hong Kong & China Gas Company Limited	RMB18.0 million	51	PRC	Gas sales and related businesses
† Yifeng Hongkong and China Gas Co., Ltd.	RMB32.0 million	100	PRC	Gas sales and related businesses
† Yingkou Hong Kong and China Gas Co., Ltd.	US\$9.4 million	100	PRC	Gas sales and related businesses
Yue Chi Hong Kong and China Gas Company Limited	RMB30.0 million	90	PRC	Gas sales and related businesses
† Zhao Yuan Hong Kong & China Gas Co., Ltd.	RMB22.0 million	100	PRC	Gas sales and related businesses
† Zhong Jiang Hong Kong and China Gas Company Limited	RMB30.0 million	100	PRC	Gas sales and related businesses
† Zhongxiang Hong Kong & China Gas Co., Ltd.	RMB42.0 million	100	PRC	Gas sales and related businesses
資陽港華燃氣有限公司	RMB30.0 million	90	PRC	Gas sales and related businesses
大連瓦房店港華燃氣有限公司 (Formerly named as 大連瓦房店金宇 港華燃氣有限公司)	RMB40.0 million	60	PRC	Gas sales and related businesses
Heilongjiang Hong Kong & China Lianfu New Energy Company Limited	RMB13.0 million	55	PRC	Vehicle gas refilling stations
† Qiqihar Xingqixiang Gas Company Limited	RMB60.0 million	100	PRC	Vehicle gas refilling stations
內蒙古港億天然氣有限公司	RMB80.0 million	85	PRC	Mid-stream natural gas project
† Towngas China Energy Investment Limited (Formerly named as Towngas China Energy Investment (Shenzhen) Limited)	RMB250.0 million	100	PRC	Investment holding
† Towngas Investments Limited	US\$200.0 million	100	PRC	Investment holding
唐山港能投智慧能源有限公司	RMB80.0 million	49	PRC	Distributed energy systems businesses

† Wholly foreign-owned enterprises

Subsidiaries (Continued)

The following is a list of the principal subsidiaries as at 31st December 2018: (Continued)

Name	Issued share capital/ registered capital	Percentage of issued/ registered capital held	Place of incorporation/ operation	Principal activity
New Energy businesses				
ECO Aviation Fuel Development Limited	HK\$2	100	Hong Kong	Aviation fuel facility
ECO Aviation Fuel Services Limited	HK\$10,000	100	Hong Kong	Aviation fuel facility
ECO Landfill Gas (NENT) Limited	HK\$100	100	Hong Kong	Landfill gas project
P-Tech Landfill Gas (SENT) Company Limited	HK\$100	100	Hong Kong	Landfill gas project
ECO Biochemical Technology (Zhangjiagang) Company Limited	US\$42.3 million	100	PRC	Chemical business
Inner Mongolia ECO Coal Chemical Technology Company Limited	RMB1,017.0 million	100	PRC	Chemical business
唐山易高農業科技有限公司	RMB3.0 million	100	PRC	Chemical business
湖北易高生物能源有限公司	RMB15.0 million	100	PRC	Chemical business
河北易高生物能源有限公司	RMB140.0 million	100	PRC	Chemical business
Inner Mongolia Ke Jian Coal Company Limited	RMB486.0 million	100	PRC	Coal related business
Qinhuangdao YiTeng Trade Co. Ltd.	US\$20.0 million	100	PRC	Coal related business
濟寧易祥煤炭貿易有限公司	RMB2.0 million	100	PRC	Coal related business
易高卓新節能技術(上海)有限公司	RMB14.0 million	100	PRC	Consultancy service
易高清潔能源管理服務(西安)有限公司	US\$1.5 million	100	PRC	Engineering service
易高新能源工程管理服務(深圳)有限公司	RMB15.0 million	100	PRC	Engineering service
易高卓新(上海)融資租賃有限公司	RMB170.0 million	100	PRC	Financing
Shanxi ECO Coalbed Methane Co., Ltd	RMB200.0 million	70	PRC	LNG business
Xuzhou ECO ZhongTai New Energy Co., Ltd.	US\$24.5 million	80	PRC	LNG business
山東嘉祥易隆港務有限公司	RMB180.0 million	88	PRC	Logistics business
ECO Orient Resources (Thailand) Ltd.	THB425.0 million	100	Thailand	Oil business
† ECO Services Management Company Limited	RMB80.0 million	100	PRC	Project management
易高環保能源科技(張家港)有限公司	US\$3.3 million	100	PRC	Research and Development
Anyang ECO Clean Energy Co., Ltd.	US\$2.3 million	100	PRC	Vehicular fuel refilling station
Chifeng ECO Clean Energy Co., Ltd.	RMB14.9 million	100	PRC	Vehicular fuel refilling station
Chiping ECO Yi Yun Gas Co. Ltd.	RMB15.0 million	100	PRC	Vehicular fuel refilling station
Dong Ping ECO Energy Co. Ltd.	RMB25.5 million	91	PRC	Vehicular fuel refilling station
Fengxiang ECO Clean Energy Company Limited	RMB15.0 million	100	PRC	Vehicular fuel refilling station
Guangzhou ECO Environmental Energy Co., Ltd.	US\$2.1 million	100	PRC	Vehicular fuel refilling station
Hanzhong ECO Clean Energy Co., Ltd.	US\$2.1 million	100	PRC	Vehicular fuel refilling station
Hebei ECO Hua Tong Clean Energy Co., Ltd	RMB31.0 million	100	PRC	Vehicular fuel refilling station
† Henan ECO Clean Energy Co., Ltd.	US\$2.2 million	100	PRC	Vehicular fuel refilling station
Jiaxiang ECO Energy Co., Ltd.	RMB28.0 million	100	PRC	Vehicular fuel refilling station

† Wholly foreign-owned enterprises

Subsidiaries (Continued)

The following is a list of the principal subsidiaries as at 31st December 2018: (Continued)

Name	Issued share capital/ registered capital	Percentage of issued/ registered capital held	Place of incorporation/ operation	Principal activity
New Energy businesses (Continued)				
Kaifeng ECO Clean Energy Co., Ltd.	US\$2.4 million	100	PRC	Vehicular fuel refilling station
Liaocheng ECO Clean Energy Co. Ltd.	US\$2.1 million	100	PRC	Vehicular fuel refilling station
Linzhou City ECO Clean Energy Co., Ltd.	US\$3.3 million	100	PRC	Vehicular fuel refilling station
MeiXian ECO Clean Energy Co., Ltd.	RMB14.2 million	100	PRC	Vehicular fuel refilling station
Nanyang ECO Clean Energy Co., Ltd.	RMB10.1 million	100	PRC	Vehicular fuel refilling station
Qingtongxia ECO Clean Energy Co., Ltd.	RMB15.4 million	100	PRC	Vehicular fuel refilling station
† Shaan Xi ECO Clean Energy Co., Ltd.	RMB27.0 million	100	PRC	Vehicular fuel refilling station
Shanxian ECO Clean Energy Co., Ltd.	US\$2.3 million	100	PRC	Vehicular fuel refilling station
Shanxian ECO RLM Clean Energy Co., Ltd.	RMB13.0 million	90	PRC	Vehicular fuel refilling station
Shanxi ECO Nova Clean Energy Co., Ltd.	RMB20.0 million	75	PRC	Vehicular fuel refilling station
Urad Middle Banner Xinran Natural Gas Co., Ltd	RMB8.3 million	100	PRC	Vehicular fuel refilling station
Weishan ECO Energy Co., Ltd.	US\$4.7 million	100	PRC	Vehicular fuel refilling station
Wuzhong ECO Clean Energy Co., Ltd.	RMB10.5 million	100	PRC	Vehicular fuel refilling station
Shaanxi ECO Yida Clean Energy Co., Ltd.	RMB12.0 million	100	PRC	Vehicular fuel refilling station
Xiwuzhumuqin Country ECO Clean Energy Co., Ltd.	RMB14.9 million	100	PRC	Vehicular fuel refilling station
Xuzhou ECO Energy Co., Ltd	RMB20.0 million	80	PRC	Vehicular fuel refilling station
Zhongwei ECO Clean Energy Co., Ltd.	RMB12.4 million	100	PRC	Vehicular fuel refilling station
察哈爾右翼前旗易高清潔能源有限公司	RMB14.9 million	100	PRC	Vehicular fuel refilling station
神木易高耀清能源有限公司	RMB38.2 million	100	PRC	Vehicular fuel refilling station
內蒙古易高清潔能源有限公司	RMB14.0 million	90	PRC	Vehicular fuel refilling station
江西易高凌峰清潔能源有限公司	RMB30.0 million	70	PRC	Vehicular fuel refilling station
邢台市易高港興清潔能源有限公司	RMB17.1 million	80	PRC	Vehicular fuel refilling station
¹ 邢台市易高興化清潔能源有限公司	RMB23.3 million	80	PRC	Vehicular fuel refilling station
錫林郭勒盟易高清潔能源有限公司	RMB14.9 million	100	PRC	Vehicular fuel refilling station
化德易高清潔能源有限公司	RMB14.4 million	100	PRC	Vehicular fuel refilling station
周至易高清潔能源有限公司	RMB9.6 million	100	PRC	Vehicular fuel refilling station
烏拉特前旗新德寶商貿有限責任公司	RMB6.8 million	100	PRC	Vehicular fuel refilling station
中衛海興易高清潔能源有限公司	RMB14.8 million	100	PRC	Vehicular fuel refilling station
山西忻州易高清潔能源有限公司	RMB14.9 million	100	PRC	Vehicular fuel refilling station
烏蘭察布市豐華商貿有限公司	RMB10.7 million	100	PRC	Vehicular fuel refilling station
巴彥淖爾市耀進燃氣有限公司	RMB10.0 million	90	PRC	Vehicular fuel refilling station
杭錦後旗耀進燃氣有限公司	RMB10.0 million	90	PRC	Vehicular fuel refilling station
韓城市易高美源清潔能源有限公司	RMB41.0 million	90	PRC	Vehicular fuel refilling station
漯河易高清潔能源有限公司	RMB14.5 million	85	PRC	Vehicular fuel refilling station
† ECO Environmental Energy Investments Limited	US\$100.0 million	100	PRC	Investment holding
† ECO Environmental Resources Investments Limited	US\$299.0 million	100	PRC	Investment holding

† *Wholly foreign-owned enterprises*

¹ *Newly acquired during the year*

Subsidiaries (Continued)

The following is a list of the principal subsidiaries as at 31st December 2018: (Continued)

Name	Issued share capital/ registered capital	Percentage of issued/ registered capital held	Place of incorporation/ operation	Principal activity
Other businesses				
HDC Data Centre Limited	HK\$100	100	Hong Kong	Telecommunications business
Towgas Telecommunications Fixed Network Limited	HK\$35.0 million	100	Hong Kong	Telecommunications business
† Towgas Telecom (Fengxian) Company Limited	RMB7.5 million	100	PRC	Telecommunications business
† Towgas Telecom (Peixian) Company Limited	RMB9.0 million	100	PRC	Telecommunications business
Towgas Telecom (Shandong) Company Limited	RMB40.0 million	90.1	PRC	Telecommunications business
Towgas Chibo Data Service (Jinan) Co., Ltd.	RMB168.0 million	87.4	PRC	Telecommunications business
† Towgas Telecommunications (Shenzhen) Company Limited	RMB6.0 million	100	PRC	Telecommunications business
TGT China Cloud Data Services (Harbin) Co., Ltd.	RMB63.0 million	80	PRC	Telecommunications business
TGT Union Financial Data Services (Dongguan) Co., Ltd.	RMB80.0 million	60	PRC	Telecommunications business
大連億達名氣通數據有限公司	RMB76.0 million	90	PRC	Telecommunications business
北京馳波名氣通數據服務有限公司	RMB10.0 million	98.7	PRC	Telecommunications business
名氣通網絡(深圳)有限公司	RMB29.5 million	100	PRC	Telecommunications business
萊陽名氣通電訊有限公司	US\$1.6 million	90	PRC	Telecommunications business
Hong Kong and China Technology (Wuhan) Company Limited	RMB21.2 million	100	PRC	System Development & Consulting Services
珠海卓銳高科信息技術有限公司	RMB7.0 million	100	PRC	System Development & Consulting Services
M-Tech Instrument (Hong Kong) Limited	HK\$100	100	Hong Kong	Gas meter and related businesses
† 卓度計量技術(深圳)有限公司	RMB60.0 million	100	PRC	Gas meter and related businesses
† 卓通管道系統(中山)有限公司	RMB41.0 million	100	PRC	PE piping system business
U-Tech Engineering Company Limited	HK\$20.0 million	100	Hong Kong	Engineering and related businesses
P-Tech Engineering Company Limited	HK\$2	100	Hong Kong	Engineering and related businesses
Starmax Assets Limited	HK\$90.0 million	100	British Virgin Islands/ Hong Kong	Property development
Financing & securities investments				
# Eagle Legend International Limited	HK\$100	100	Hong Kong	Financing
# HKCG (Finance) Limited	HK\$100	100	Hong Kong	Financing
TCCL (Finance) Limited	HK\$1	67.5	Hong Kong	Financing
# Towgas (Finance) Limited	HK\$100	100	British Virgin Islands	Financing
Barnaby Assets Limited	US\$1	100	British Virgin Islands/ Hong Kong	Securities investment

Direct subsidiaries of the Company

† Wholly foreign-owned enterprises

Subsidiaries (Continued)

The following is a list of the principal subsidiaries as at 31st December 2018: (Continued)

Name	Issued share capital/ registered capital	Percentage of issued/ registered capital held	Place of incorporation/ operation	Principal activity
Financing & securities investments (Continued)				
Danetop Services Limited	US\$1	100	British Virgin Islands/ Hong Kong	Securities investment
Investstar Limited	HK\$100	100	Hong Kong	Securities investment
Superfun Enterprises Limited	US\$1	100	British Virgin Islands/ Hong Kong	Securities investment
Upwind International Limited	US\$1	100	British Virgin Islands/ Hong Kong	Securities investment
Investment holding				
Apex Time Holdings Limited	HK\$100	100	Hong Kong	Investment holding
ECO Coal Chemical Technology (Inner Mongolia) Limited	HK\$100	100	Hong Kong	Investment holding
ECO Environmental Investments Limited	HK\$2	100	Hong Kong	Investment holding
ECO Environmental Energy (China) Limited	HK\$100	100	Hong Kong	Investment holding
ECO Environmental Investments (China) Limited	US\$1	100	British Virgin Islands	Investment holding
ECO Advanced Carbon Materials Company Limited	HK\$100	100	Hong Kong	Investment holding
ECO Natural Gas (China) Limited	US\$1	100	British Virgin Islands/ Hong Kong	Investment holding
ECO Natural Gas (Xian) Limited	US\$1	100	British Virgin Islands/ Hong Kong	Investment holding
ECO Orient Energy (Thailand) Ltd.	US\$12,000	100	Bermuda	Investment holding
Fanico Investments Limited	HK\$1	100	Hong Kong	Investment holding
G-Tech Piping Technologies Limited	HK\$100	100	Hong Kong	Investment holding
Hong Kong & China Gas (Anhui) Limited	US\$1	100	British Virgin Islands/ Hong Kong	Investment holding
Hong Kong & China Gas (Changzhou) Limited	US\$1	100	British Virgin Islands/ Hong Kong	Investment holding
Hong Kong & China Gas (Chaozhou) Limited	US\$1	100	British Virgin Islands/ Hong Kong	Investment holding
Hong Kong & China Gas (China) Limited	HK\$10,000	100	British Virgin Islands/ Hong Kong	Investment holding
Hong Kong & China Gas (Danyang) Limited	US\$1	100	British Virgin Islands/ Hong Kong	Investment holding
Hong Kong & China Gas (Fengcheng) Limited	US\$1	100	British Virgin Islands/ Hong Kong	Investment holding
Hong Kong & China Gas (Guangzhou) Limited	HK\$1,000	100	British Virgin Islands/ Hong Kong	Investment holding
Hong Kong & China Gas (Hebei) Limited	US\$1	100	British Virgin Islands/ Hong Kong	Investment holding
Hong Kong & China Gas (Jilin Province) Limited	US\$1	100	British Virgin Islands/ Hong Kong	Investment holding

Subsidiaries (Continued)

The following is a list of the principal subsidiaries as at 31st December 2018: (Continued)

Name	Issued share capital/ registered capital	Percentage of issued/ registered capital held	Place of incorporation/ operation	Principal activity
Investment holding (Continued)				
Hong Kong & China Gas (Jinan) Limited	US\$1	100	British Virgin Islands/ Hong Kong	Investment holding
Hong Kong & China Gas (Jintan) Limited	US\$1	100	British Virgin Islands/ Hong Kong	Investment holding
Hong Kong & China Gas (Nanjing) Limited	US\$1	100	British Virgin Islands/ Hong Kong	Investment holding
Hong Kong & China Gas (Panyu) Limited	HK\$1,000	100	British Virgin Islands/ Hong Kong	Investment holding
Hong Kong and China Gas (Qianhai) Limited	HK\$100	100	Hong Kong	Investment holding
Hong Kong & China Gas (Suzhou) Limited	US\$1	100	British Virgin Islands/ Hong Kong	Investment holding
Hong Kong & China Gas (Taizhou) Limited	US\$1	100	British Virgin Islands/ Hong Kong	Investment holding
Hong Kong & China Gas (Wuhan) Limited	US\$1	100	British Virgin Islands/ Hong Kong	Investment holding
Hong Kong & China Gas (Wujiang) Limited	US\$1	100	British Virgin Islands/ Hong Kong	Investment holding
Hong Kong & China Gas (Xuzhou) Limited	US\$1	100	British Virgin Islands/ Hong Kong	Investment holding
Hong Kong & China Gas (Yixing) Limited	US\$1	100	British Virgin Islands/ Hong Kong	Investment holding
Hong Kong & China Gas (Zhangjiagang) Limited	US\$1	100	British Virgin Islands/ Hong Kong	Investment holding
Hong Kong & China Gas (Zhongshan) Limited	HK\$1,000	100	British Virgin Islands/ Hong Kong	Investment holding
Hong Kong and China Water (Maanshan) Limited	HK\$100	100	Hong Kong	Investment holding
Hong Kong & China Water (Suzhou) Limited	US\$1	100	British Virgin Islands/ Hong Kong	Investment holding
Hong Kong & China Water (Wujiang) Limited	US\$1	100	British Virgin Islands/ Hong Kong	Investment holding
Hong Kong & China Water Limited (Carrying on business in Hong Kong as "Hua Yan Water (China) Limited")	US\$1	100	British Virgin Islands/ Hong Kong	Investment holding
Hong Kong and China Gas (Hainan) Limited	HK\$100	100	Hong Kong	Investment holding
Hong Kong and China Gas (Jiangxi) Limited	HK\$100	100	Hong Kong	Investment holding
Hong Kong and China Gas (Jingxian) Limited	HK\$100	100	Hong Kong	Investment holding
Hong Kong and China Gas (Xinmi) Limited	HK\$100	100	Hong Kong	Investment holding
Hong Kong and China Gas (Zhangshu) Limited	HK\$100	100	Hong Kong	Investment holding

Subsidiaries (Continued)

The following is a list of the principal subsidiaries as at 31st December 2018: (Continued)

Name	Issued share capital/ registered capital	Percentage of issued/ registered capital held	Place of incorporation/ operation	Principal activity
Investment holding (Continued)				
Hong Kong and China Gas (Zhengzhou) Limited	HK\$100	100	Hong Kong	Investment holding
Hong Kong and China Water (Anhui Jiangbei) Limited	HK\$100	100	Hong Kong	Investment holding
M-Tech Instrument Corporation (Holding) Limited	HK\$119	100	Hong Kong	Investment holding
Meter Technologies Limited	HK\$100	100	Hong Kong	Investment holding
Sky Global Limited (Carrying on business in Hong Kong as "Hong Kong & China Gas (Jilin Gas) Limited")	US\$100	100	British Virgin Islands/ Hong Kong	Investment holding
TGT Harbin Company Limited	HK\$100	100	Hong Kong	Investment holding
TGT BROADBANDgo Company Limited	US\$1	100	British Virgin Islands	Investment holding
TGT Destic Company Limited	HK\$100	100	Hong Kong	Investment holding
TGT Shanghai Data Services Company Limited	HK\$100	100	Hong Kong	Investment holding
TGT TGgo Company Limited	US\$1	100	British Virgin Islands	Investment holding
# Towngas International Company Limited	US\$1	100	British Virgin Islands/ Hong Kong	Investment holding
# Towngas Investment Company Limited	HK\$2	100	Hong Kong	Investment holding
Towngas Telecommunications (China) Limited	US\$1	100	British Virgin Islands	Investment holding

Direct subsidiaries of the Company

The above table lists the subsidiaries of the Group which, in the opinion of the directors of the Company, principally affected the results or assets of the Group. To give details of other subsidiaries would, in the opinion of the directors of the Company, result in particulars of excessive length.

CORPORATE INFORMATION

Chairman

Lee Shau-kee

Directors

Colin Lam Ko-yin
David Li Kwok-po*
Lee Ka-kit
Alfred Chan Wing-kin
Lee Ka-shing
Poon Chung-kwong*
Peter Wong Wai-yee
Moses Cheng Mo-chi*
(appointed on 14th January 2019)

* Independent Non-executive Director

Managing Director

Alfred Chan Wing-kin

Executive Director and Chief Operating Officer – Utilities Business

Peter Wong Wai-yee

Chief Financial Officer and Company Secretary

John Ho Hon-ming

Registered Office

23rd Floor, 363 Java Road,
North Point, Hong Kong

Company's Website

www.towngas.com

Share Registrar

Computershare Hong Kong
Investor Services Limited
Shops 1712-1716, 17th Floor,
Hopewell Centre,
183 Queen's Road East,
Wanchai, Hong Kong
Tel: 2862 8555
Fax: 2865 0990

Auditor

PricewaterhouseCoopers
Certified Public Accountants
22nd Floor, Prince's Building,
Central,
Hong Kong

Principal Bankers

The Hongkong and Shanghai Banking
Corporation Limited
1 Queen's Road Central,
Hong Kong

The Bank of East Asia, Limited
10 Des Voeux Road Central,
Hong Kong

Investor Relations

Corporate Treasury and Investor
Relations Department
Tel: 2963 3189
Fax: 2911 9005
e-mail: invrelation@towngas.com

Corporate Affairs Department
Tel: 2963 3493
Fax: 2516 7368
e-mail: cad@towngas.com

Company Secretarial Department
Tel: 2963 3292
Fax: 2562 6682
e-mail: compsec@towngas.com

FINANCIAL CALENDAR

Half-Year Results	Announced on Tuesday, 21st August 2018
Full-Year Results	Announced on Wednesday, 20th March 2019
Annual Report	Posted to Shareholders on Tuesday, 23rd April 2019
Register of Members	(i) To be closed from Thursday, 23rd May 2019 to Tuesday, 28th May 2019, for the purpose of determining entitlement of Shareholders to the right to attend and vote at the Annual General Meeting (ii) To be closed from Monday, 3rd June 2019 to Wednesday, 5th June 2019, for the purpose of determining Shareholders who qualify for the proposed issue of bonus shares and final dividend
Annual General Meeting	To be held on Tuesday, 28th May 2019
Dividends – Interim	HK12 cents – Paid on Tuesday, 2nd October 2018
– Final (Proposed)	HK23 cents – Payable on Thursday, 13th June 2019
Bonus Issue of Shares (Proposed)	Share certificates to be posted to Shareholders on Thursday, 13th June 2019

Both printed English and Chinese versions of this Annual Report are available upon request from the Company and the Company's share registrar free of charge. The website version of this Annual Report is also available on the Company's website.

The Hong Kong and China Gas Company Limited
香港中華煤氣有限公司

23rd Floor, 363 Java Road, North Point, Hong Kong

www.towngas.com

